00871 26286760

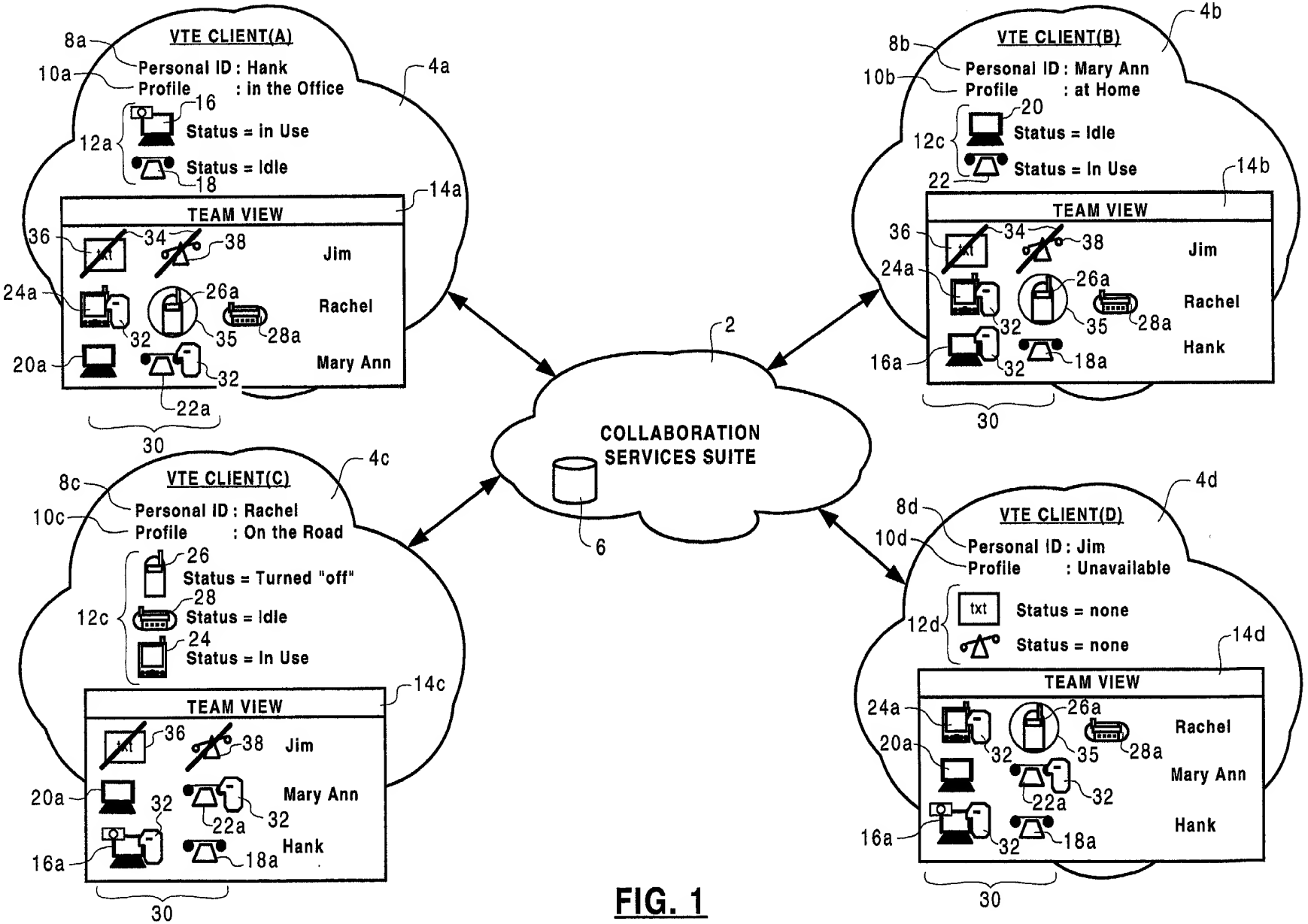


FIG. 1

FIG. 2

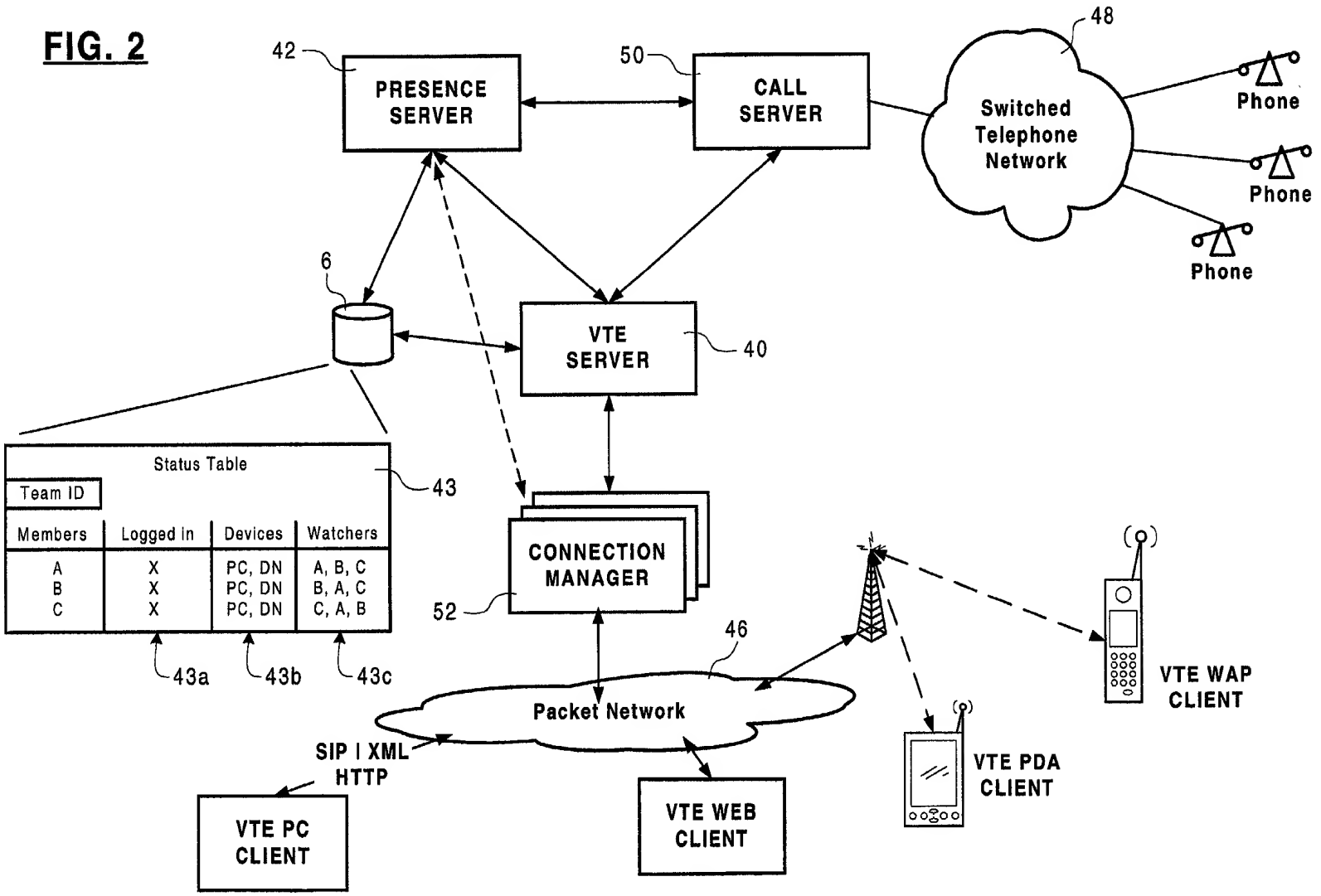

42
PRESENCE SERVER
50
CALL SERVER
48
Switched Telephone Network
Phone
Phone
Phone
6
VTE SERVER
40
Status Table
43
Team ID
Members
Logged In
Devices
Watchers
A
B
C
X
X
X
PC, DN
PC, DN
PC, DN
A, B, C
B, A, C
C, A, B
43a
43b
43c
CONNECTION MANAGER
52
46
Packet Network
SIP I XML
HTTP
VTE PC CLIENT
VTE WEB CLIENT
VTE PDA CLIENT
VTE WAP CLIENT

FIG. 3

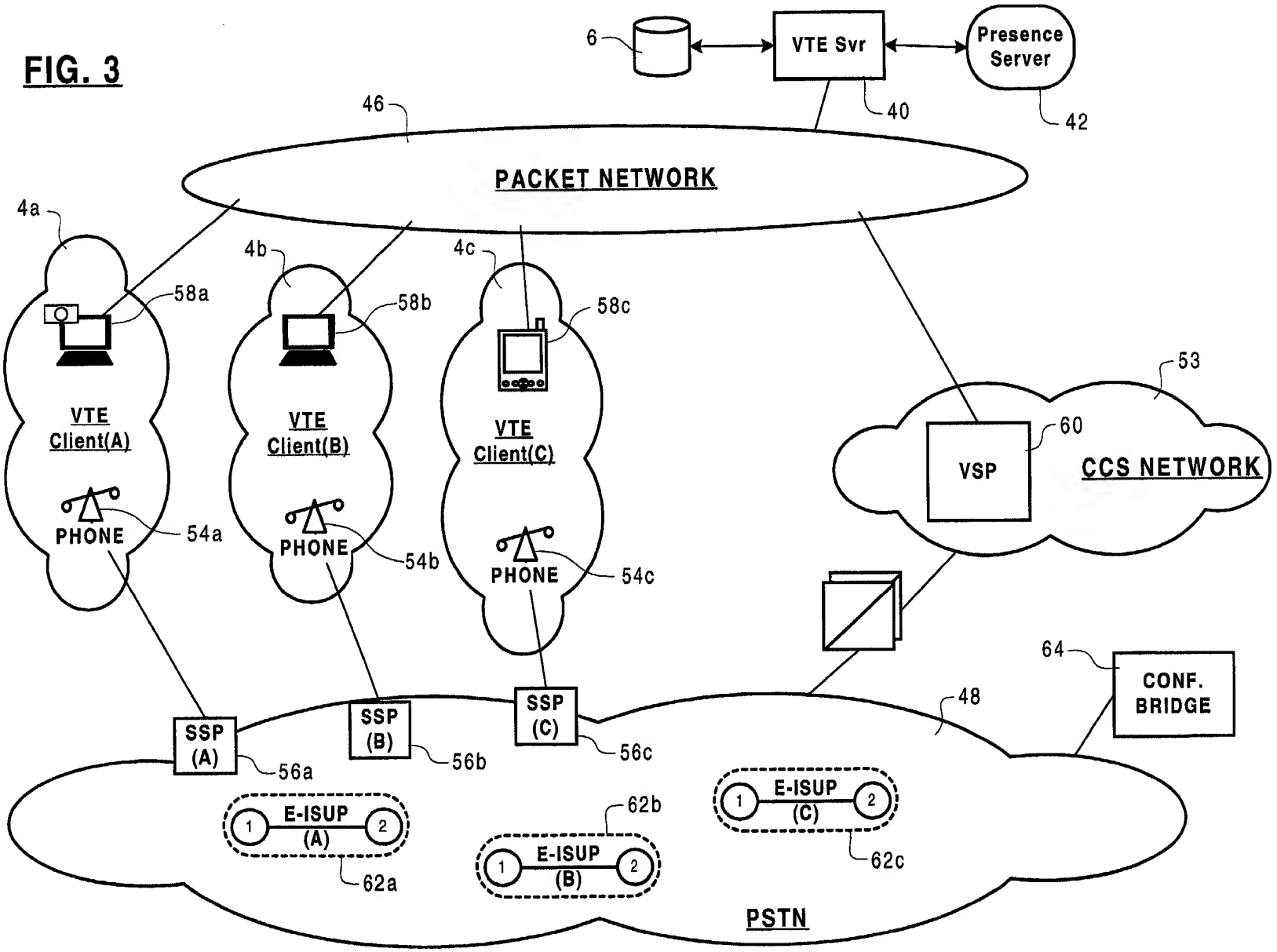

6
VTE Svr
Presence Server
40
42
46
PACKET NETWORK
4a
4b
4c
58a
58b
58c
VTE Client(A)
VTE Client(B)
VTE Client(C)
PHONE
PHONE
PHONE
54a
54b
54c
53
VSP
60
CCS NETWORK
64
CONF. BRIDGE
48
SSP (A)
SSP (B)
SSP (C)
56a
56b
56c
E-ISUP (A)
E-ISUP (B)
E-ISUP (C)
62a
62b
62c
PSTN

FIG. 4

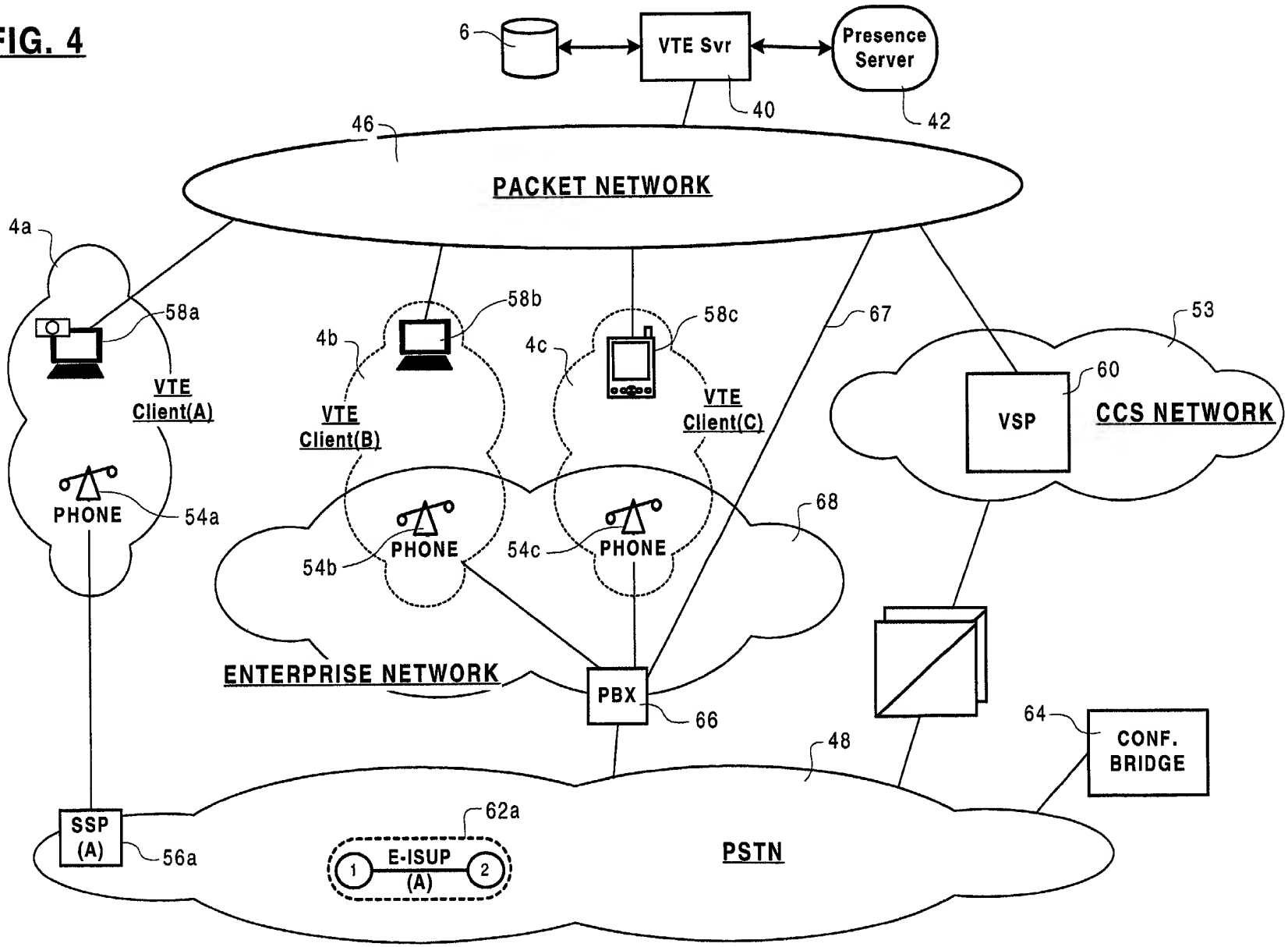
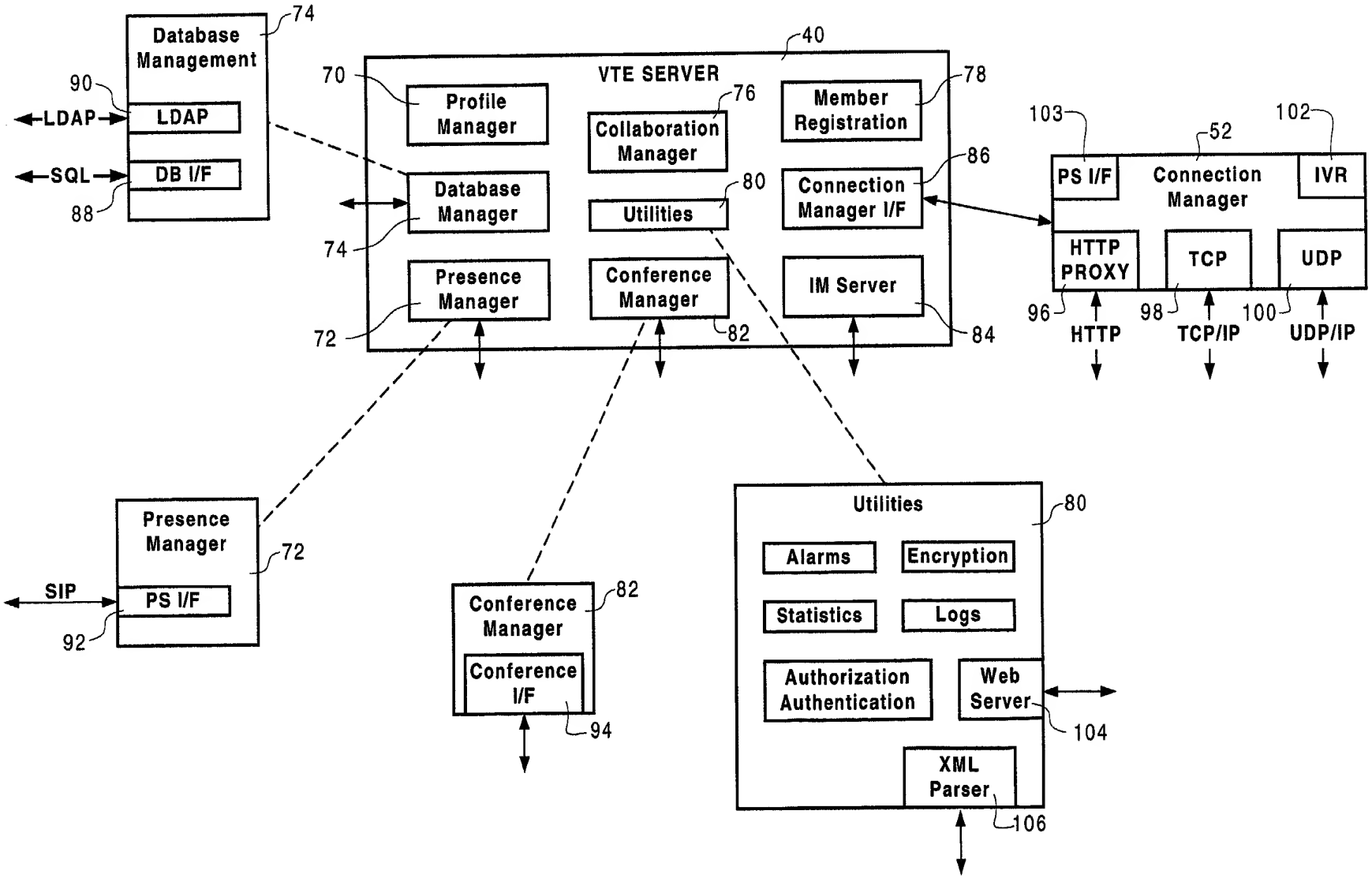

6
VTE Svr
Presence Server
40
42
46
PACKET NETWORK
4a
58a
VTE Client(A)
PHONE
54a
4b
58b
VTE Client(B)
PHONE
54b
4c
58c
VTE Client(C)
PHONE
54c
67
53
60
VSP
CCS NETWORK
68
ENTERPRISE NETWORK
PBX
66
64
CONF. BRIDGE
48
SSP (A)
56a
62a
E-ISUP (A)
1
2
PSTN

FIG. 5


Database Management
74
90
LDAP
LDAP
SQL
DB I/F
88
VTE SERVER
40
70
Profile Manager
76
Collaboration Manager
78
Member Registration
Database Manager
74
80
Utilities
86
Connection Manager I/F
Presence Manager
72
Conference Manager
82
IM Server
84
103
PS I/F
52
Connection Manager
102
IVR
HTTP PROXY
TCP
UDP
96
98
100
HTTP
TCP/IP
UDP/IP
Presence Manager
72
SIP
PS I/F
92
Conference Manager
82
Conference I/F
94
Utilities
80
Alarms
Encryption
Statistics
Logs
Authorization Authentication
Web Server
104
XML Parser
106

08727 2628260

FIG. 6

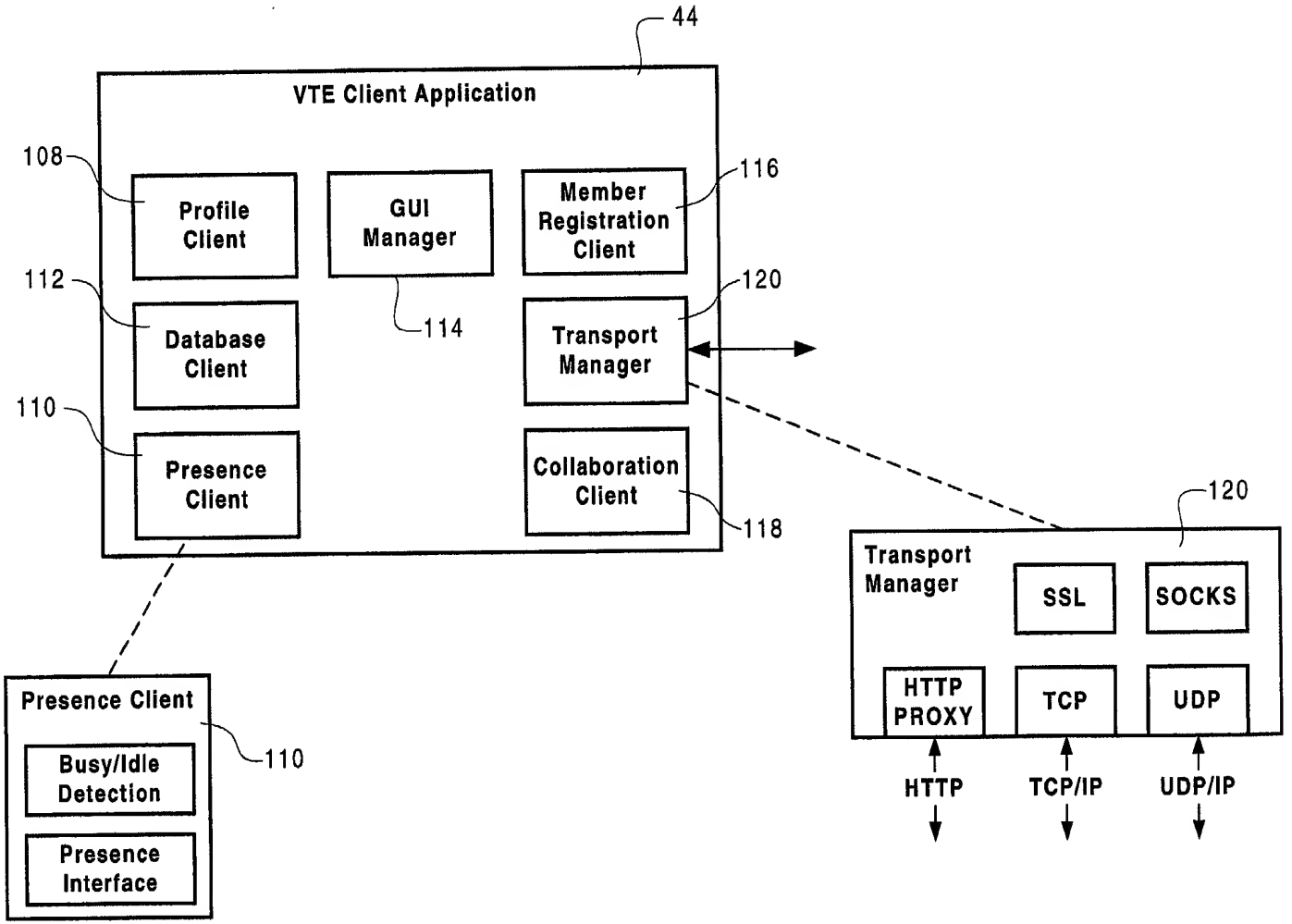


FIG. 7

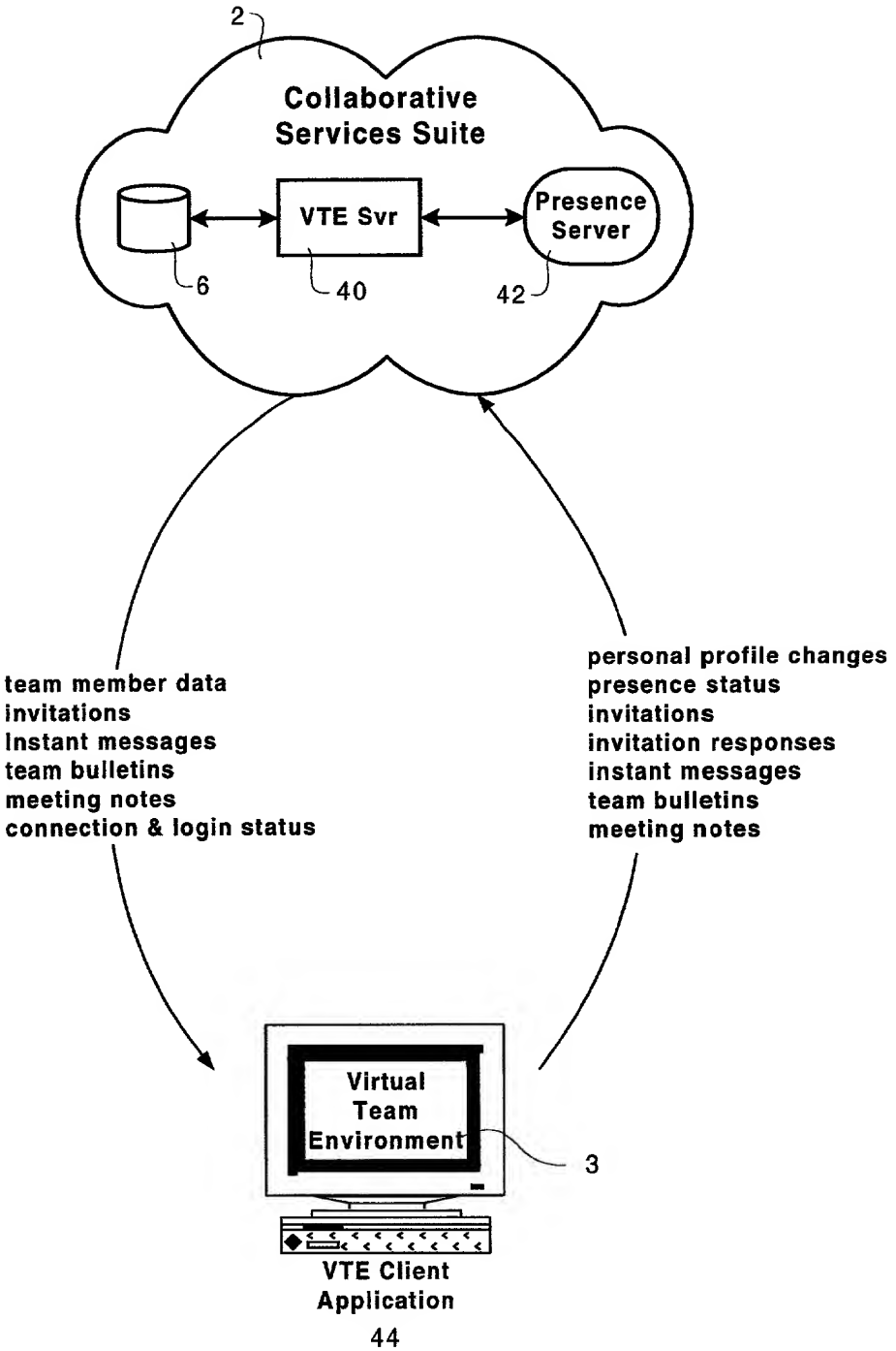

2
Collaborative Services Suite
VTE Svr
Presence Server
6
40
42
team member data
invitations
Instant messages
team bulletins
meeting notes
connection & login status
personal profile changes
presence status
invitations
invitation responses
instant messages
team bulletins
meeting notes
Virtual Team Environment
3
VTE Client Application
44

FIG. 8

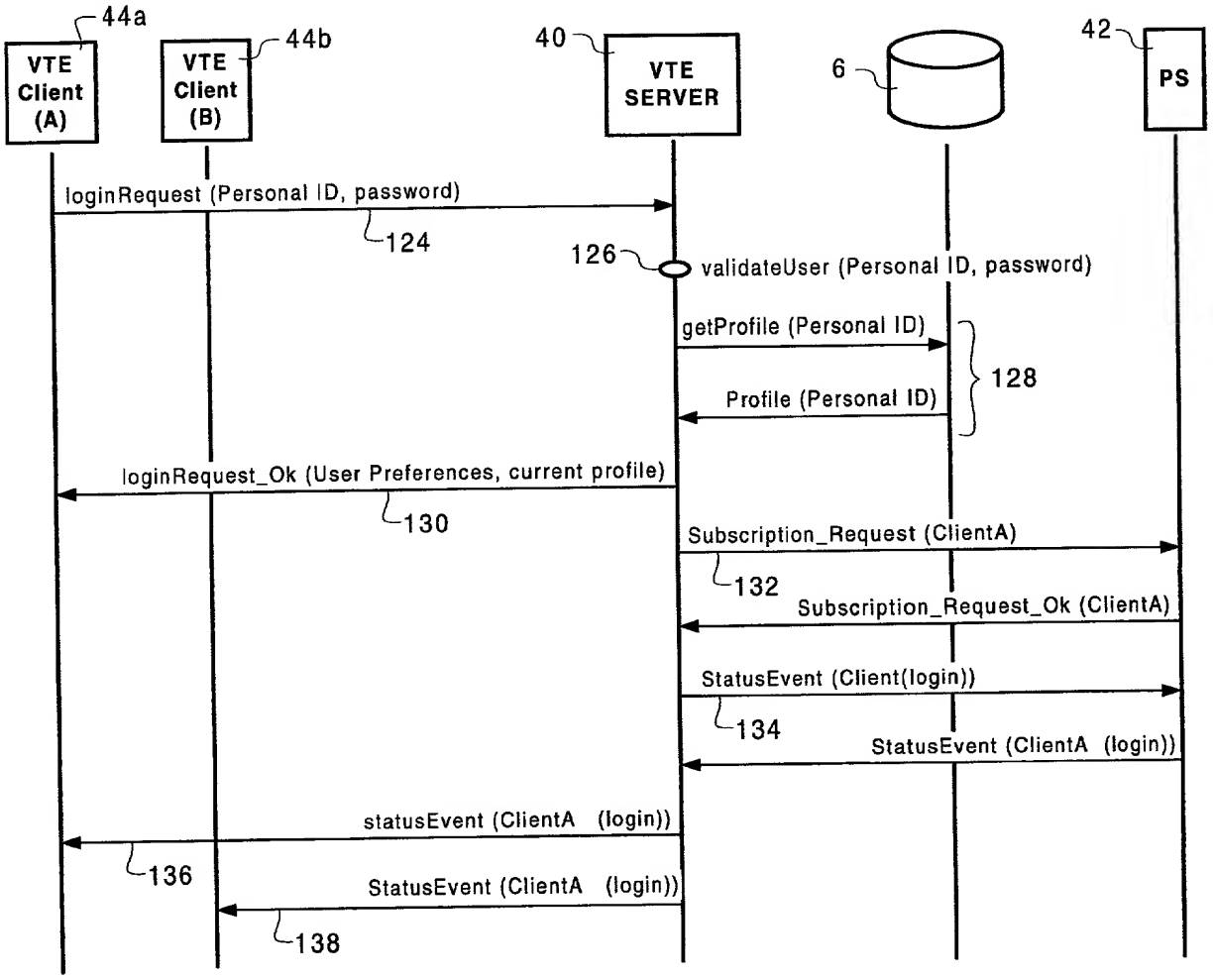

44a
VTE Client (A)
44b
VTE Client (B)
40
VTE SERVER
6
42
PS
loginRequest (Personal ID, password)
124
126
validateUser (Personal ID, password)
getProfile (Personal ID)
Profile (Personal ID)
128
loginRequest_Ok (User Preferences, current profile)
130
Subscription_Request (ClientA)
132
Subscription_Request_Ok (ClientA)
StatusEvent (Client(login))
134
StatusEvent (ClientA (login))
statusEvent (ClientA (login))
136
StatusEvent (ClientA (login))
138

FIG. 9

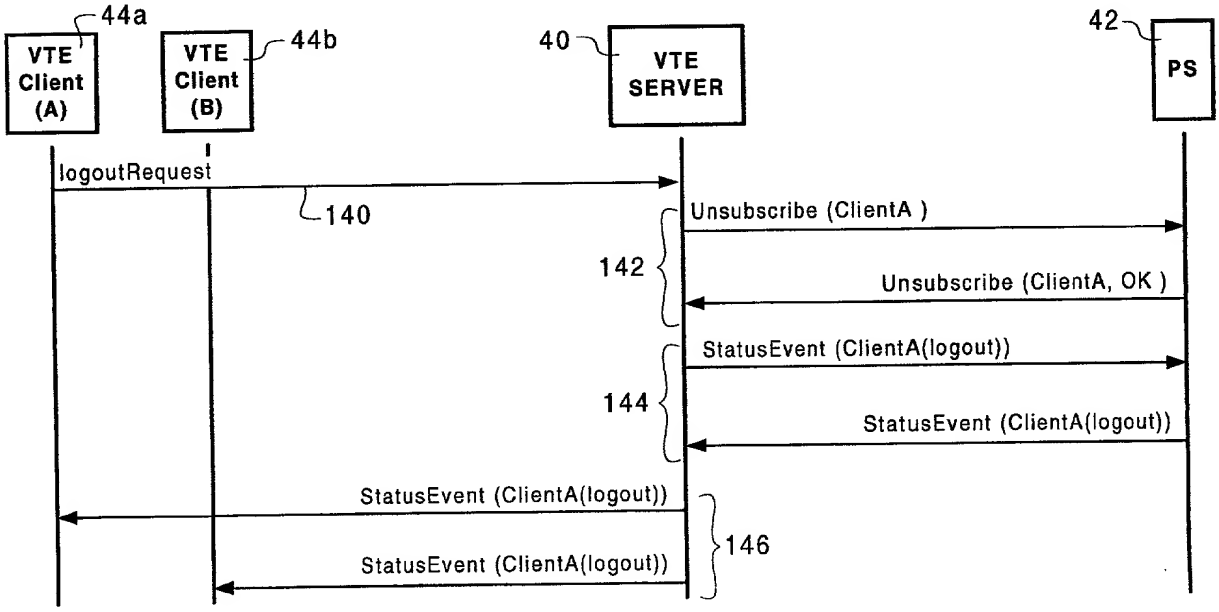

44a
VTE Client (A)
44b
VTE Client (B)
40
VTE SERVER
42
PS
logoutRequest
140
Unsubscribe (ClientA)
142
Unsubscribe (ClientA, OK)
StatusEvent (ClientA(logout))
144
StatusEvent (ClientA(logout))
StatusEvent (ClientA(logout))
146
StatusEvent (ClientA(logout))

FIG. 10

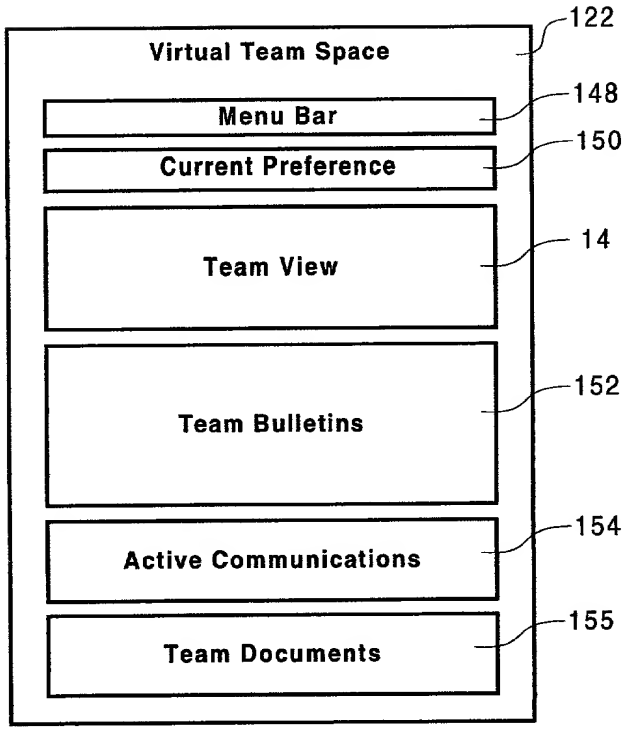

Virtual Team Space
122
Menu Bar
148
Current Preference
150
Team View
14
Team Bulletins
152
Active Communications
154
Team Documents
155

FIG. 11

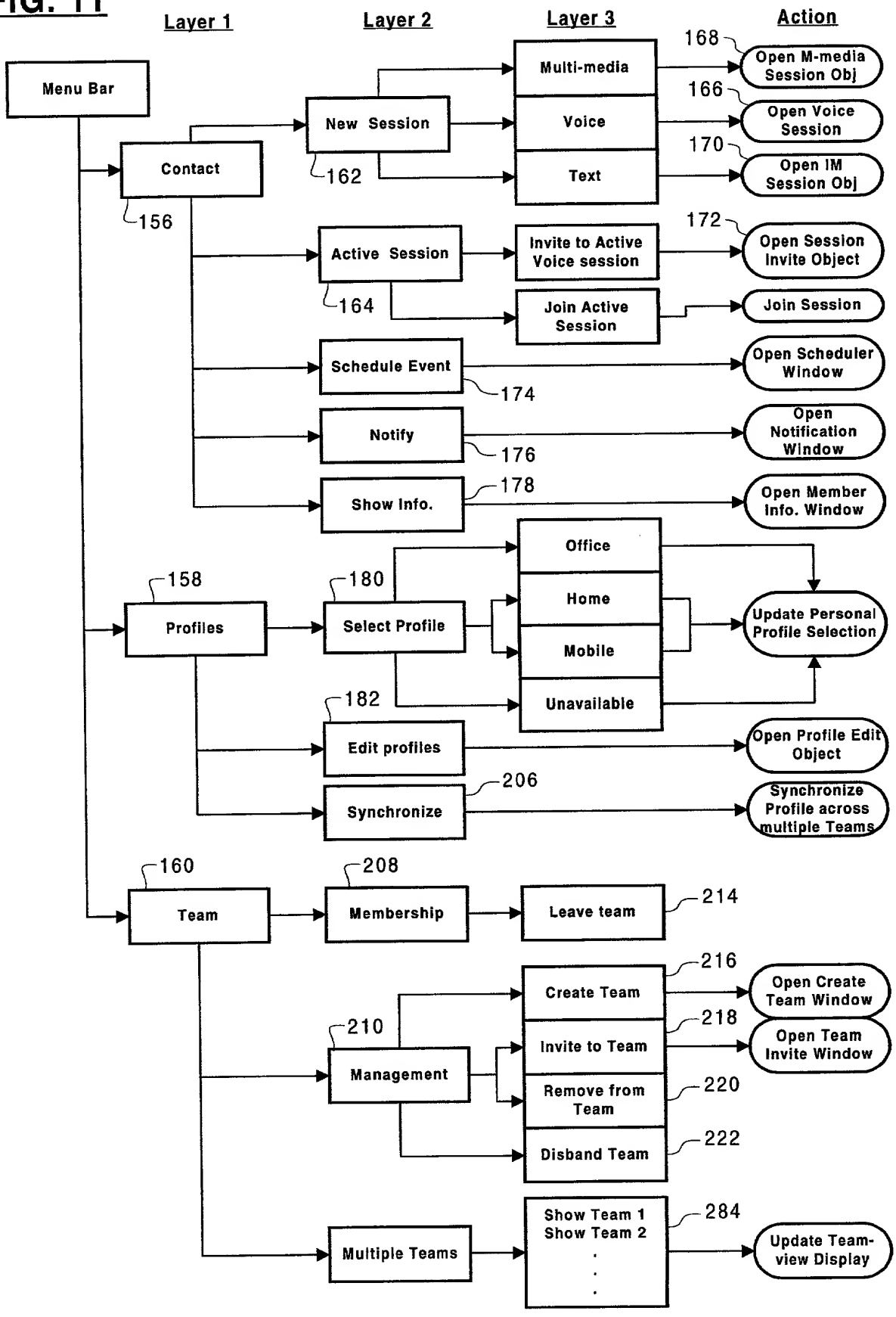

Layer 1
Layer 2
Layer 3
Action
Menu Bar
Contact
156
New Session
162
Multi-media
Voice
Text
168
Open M-media Session Obj
166
Open Voice Session
170
Open IM Session Obj
Active Session
164
Invite to Active Voice session
Join Active Session
172
Open Session Invite Object
Join Session
Schedule Event
174
Open Scheduler Window
Notify
176
Open Notification Window
Show Info.
178
Open Member Info. Window
Profiles
158
Select Profile
180
Office
Home
Mobile
Unavailable
Update Personal Profile Selection
Edit profiles
182
Open Profile Edit Object
Synchronize
206
Synchronize Profile across multiple Teams
Team
160
Membership
208
Leave team
214
Management
210
Create Team
Invite to Team
Remove from Team
Disband Team
216
Open Create Team Window
218
Open Team Invite Window
220
222
Multiple Teams
Show Team 1
Show Team 2
284
Update Team-view Display

FIG. 12

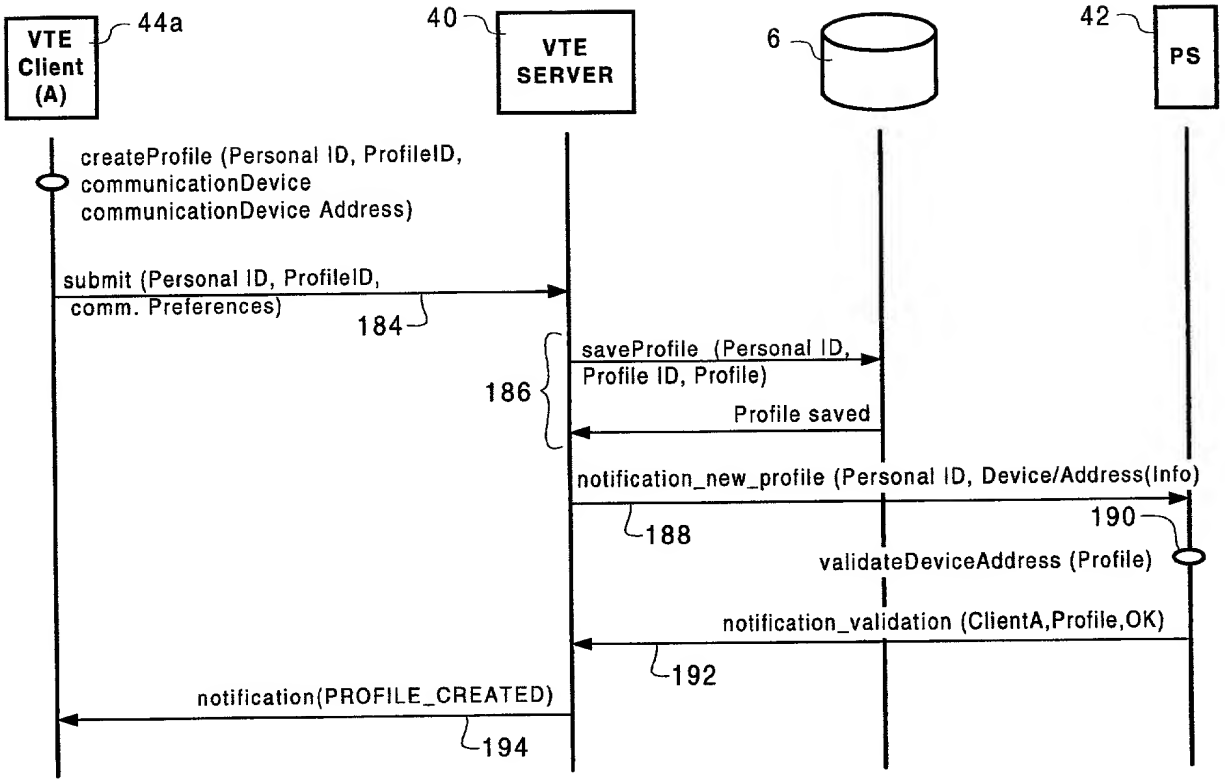

VTE Client (A)
44a
40
VTE SERVER
6
42
PS
createProfile (Personal ID, ProfileID, communicationDevice communicationDevice Address)
submit (Personal ID, ProfileID, comm. Preferences)
184
saveProfile (Personal ID, Profile ID, Profile)
186
Profile saved
notification_new_profile (Personal ID, Device/Address(Info)
188
190
validateDeviceAddress (Profile)
notification_validation (ClientA,Profile,OK)
192
notification(PROFILE_CREATED)
194

FIG. 13

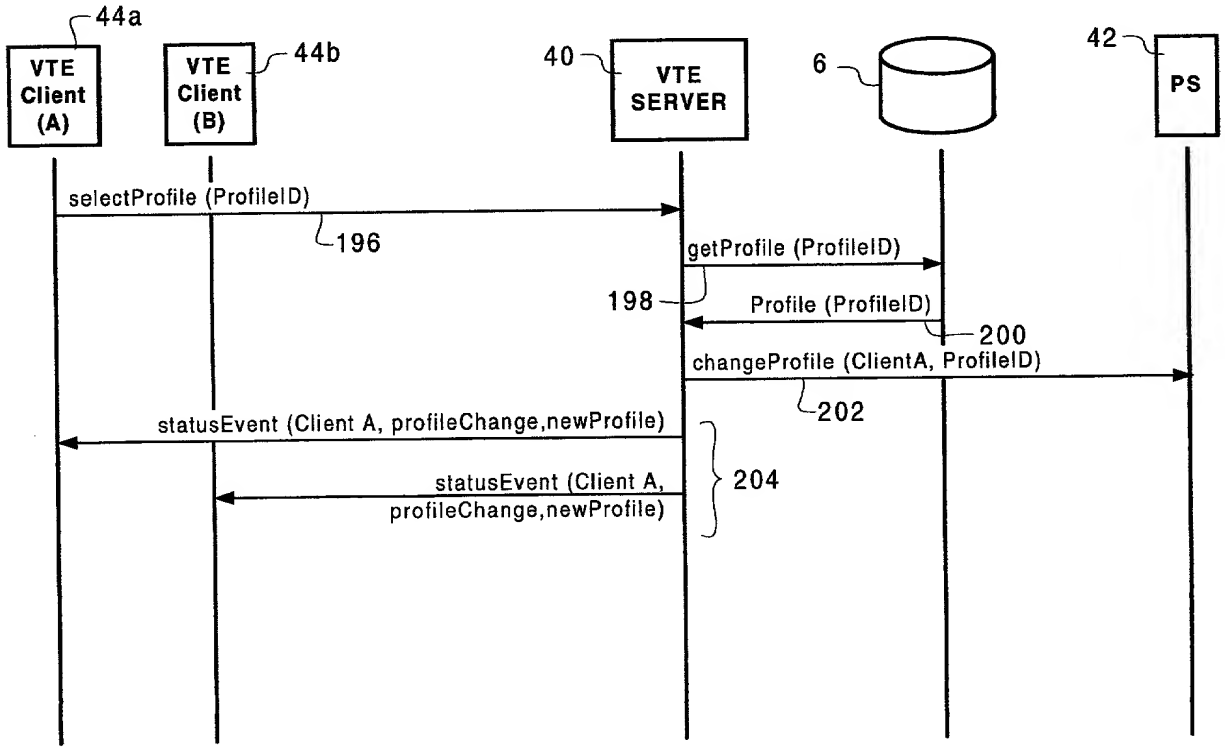

44a
VTE Client (A)
VTE Client (B)
44b
40
VTE SERVER
6
42
PS
selectProfile (ProfileID)
196
getProfile (ProfileID)
198
Profile (ProfileID)
200
changeProfile (ClientA, ProfileID)
202
statusEvent (Client A, profileChange,newProfile)
statusEvent (Client A, profileChange,newProfile)
204

FIG. 14

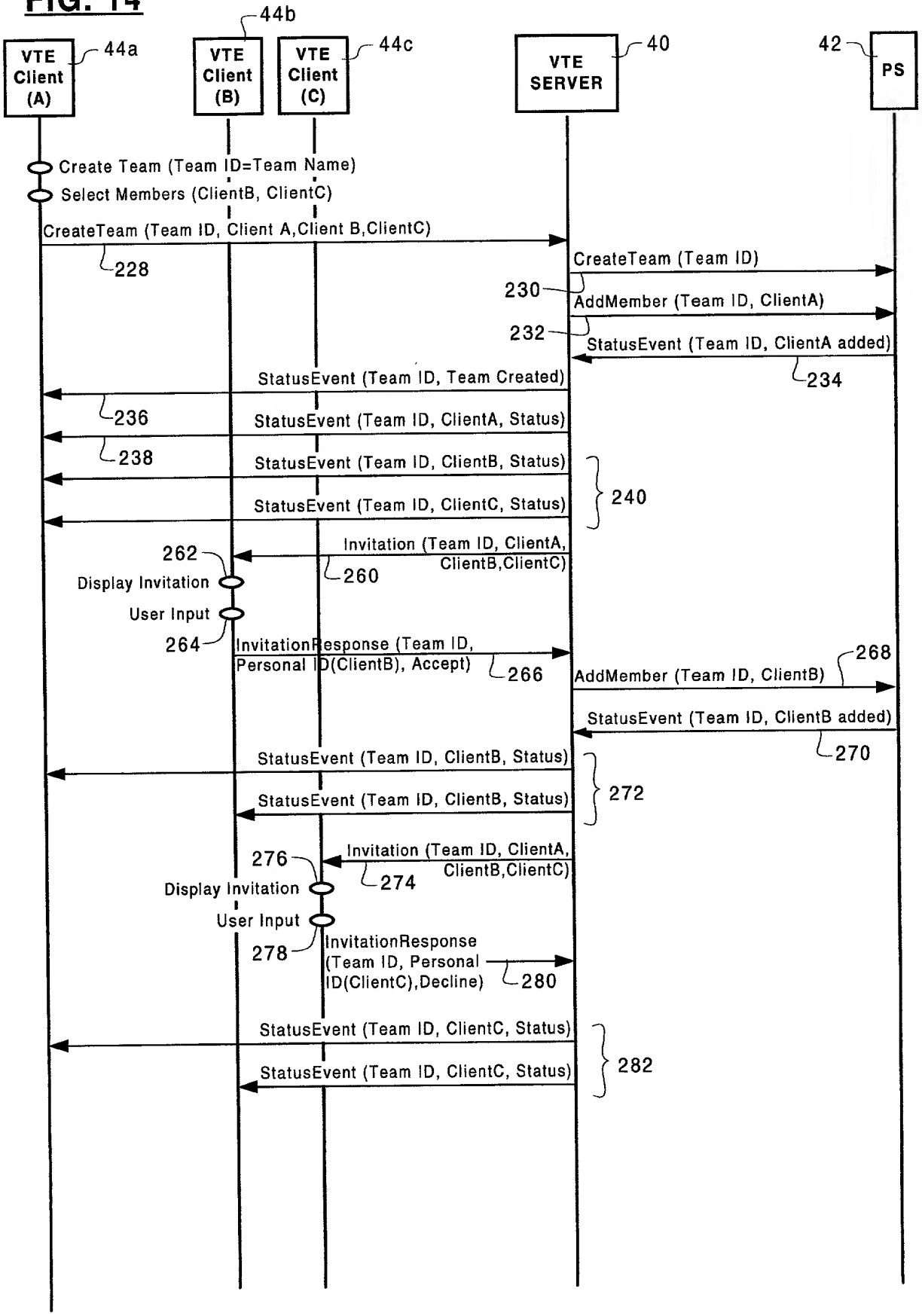

VTE Client (A)
44a
VTE Client (B)
44b
VTE Client (C)
44c
VTE SERVER
40
PS
42
Create Team (Team ID=Team Name)
Select Members (ClientB, ClientC)
CreateTeam (Team ID, Client A,Client B,ClientC)
228
CreateTeam (Team ID)
230
AddMember (Team ID, ClientA)
232
StatusEvent (Team ID, ClientA added)
234
StatusEvent (Team ID, Team Created)
236
StatusEvent (Team ID, ClientA, Status)
238
StatusEvent (Team ID, ClientB, Status)
StatusEvent (Team ID, ClientC, Status)
240
262
Invitation (Team ID, ClientA, ClientB,ClientC)
260
Display Invitation
User Input
264
InvitationResponse (Team ID, Personal ID(ClientB), Accept)
266
268
AddMember (Team ID, ClientB)
StatusEvent (Team ID, ClientB added)
270
StatusEvent (Team ID, ClientB, Status)
StatusEvent (Team ID, ClientB, Status)
272
276
Invitation (Team ID, ClientA, ClientB,ClientC)
274
Display Invitation
User Input
278
InvitationResponse (Team ID, Personal ID(ClientC),Decline)
280
StatusEvent (Team ID, ClientC, Status)
StatusEvent (Team ID, ClientC, Status)
282

FIG. 15

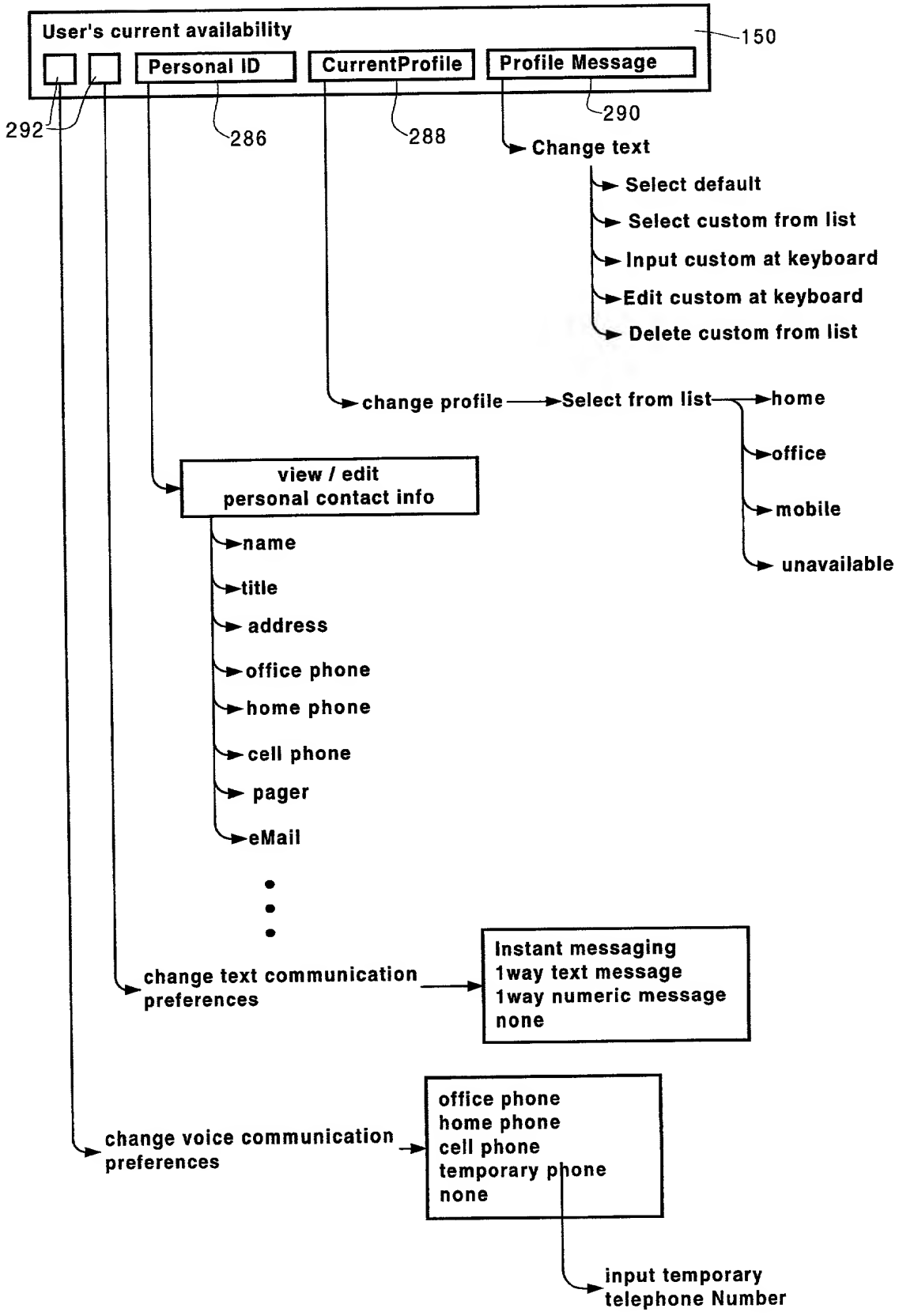

User's current availability
150
Personal ID
CurrentProfile
Profile Message
292
286
288
290
Change text
Select default
Select custom from list
Input custom at keyboard
Edit custom at keyboard
Delete custom from list
change profile
Select from list
home
office
mobile
unavailable
view / edit
personal contact info
name
title
address
office phone
home phone
cell phone
pager
eMail
change text communication
preferences
Instant messaging
1way text message
1way numeric message
none
change voice communication
preferences
office phone
home phone
cell phone
temporary phone
none
input temporary
telephone Number

FIG. 16

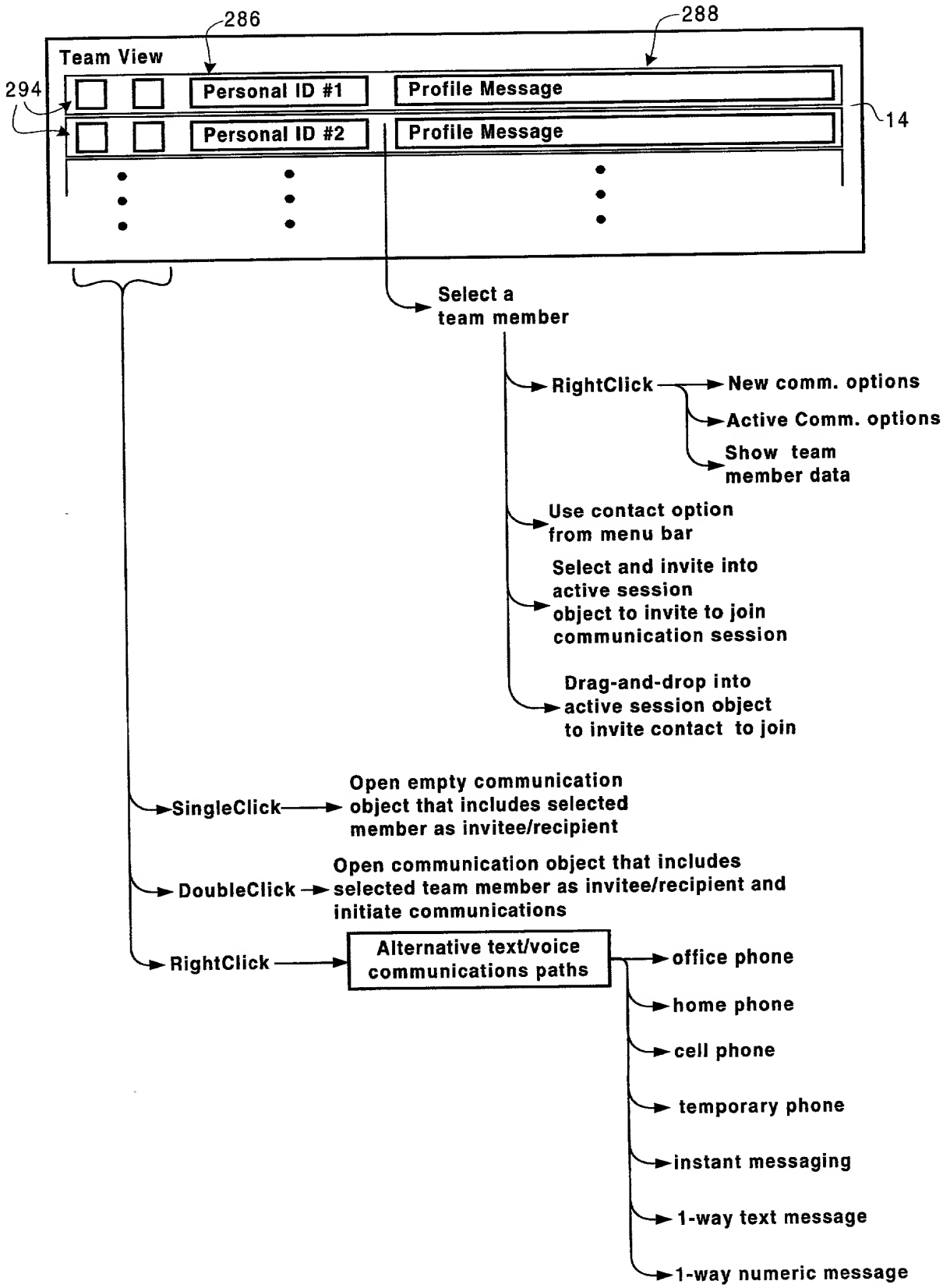

286
288
Team View
294
Personal ID #1
Profile Message
Personal ID #2
Profile Message
14
Select a team member
RightClick
New comm. options
Active Comm. options
Show team member data
Use contact option from menu bar
Select and invite into active session object to invite to join communication session
Drag-and-drop into active session object to invite contact to join
SingleClick
Open empty communication object that includes selected member as invitee/recipient
DoubleClick
Open communication object that includes selected team member as invitee/recipient and initiate communications
RightClick
Alternative text/voice communications paths
office phone
home phone
cell phone
temporary phone
instant messaging
1-way text message
1-way numeric message

FIG. 17

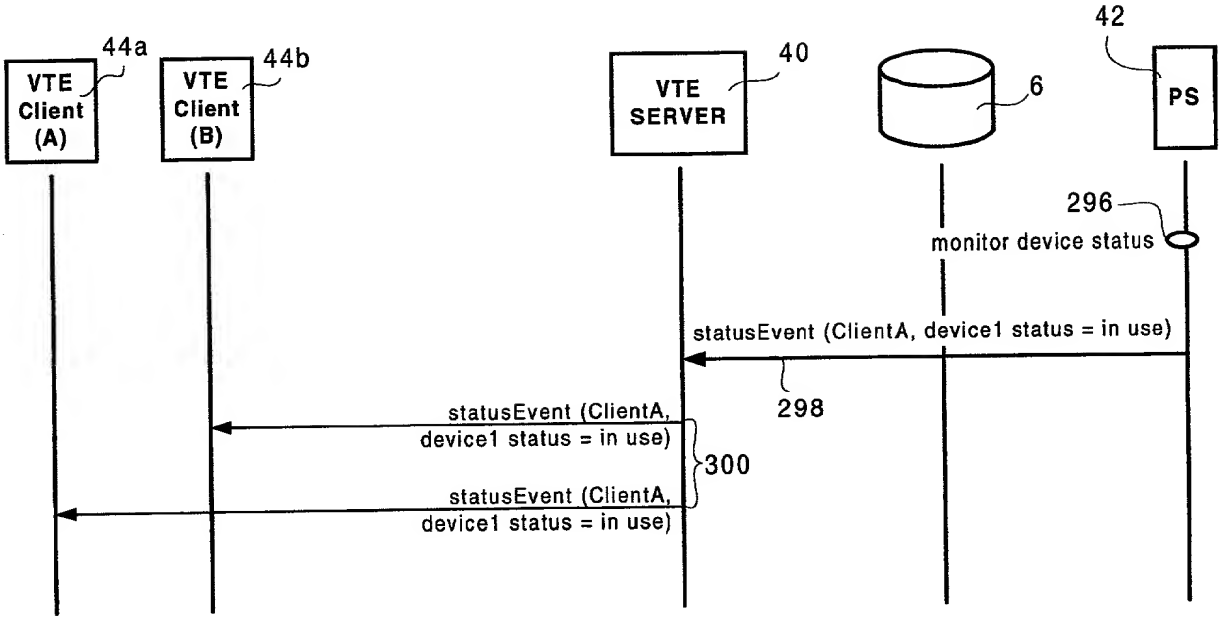

VTE Client (A)
44a
VTE Client (B)
44b
VTE SERVER
40
6
PS
42
296
monitor device status
statusEvent (ClientA, device1 status = in use)
298
statusEvent (ClientA, device1 status = in use)
statusEvent (ClientA, device1 status = in use)
300

FIG. 18

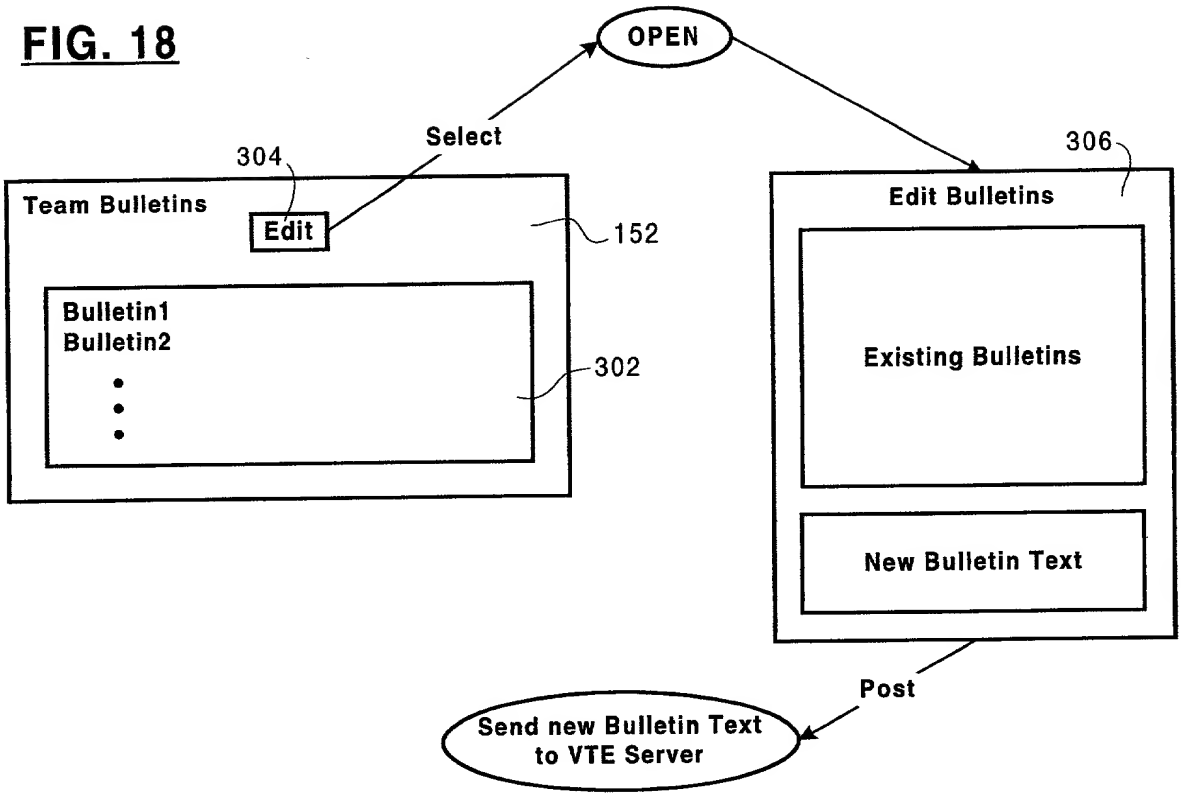

OPEN
Select
304
306
Team Bulletins
Edit
152
Edit Bulletins
Bulletin1
Bulletin2
302
Existing Bulletins
New Bulletin Text
Post
Send new Bulletin Text to VTE Server

FIG. 19

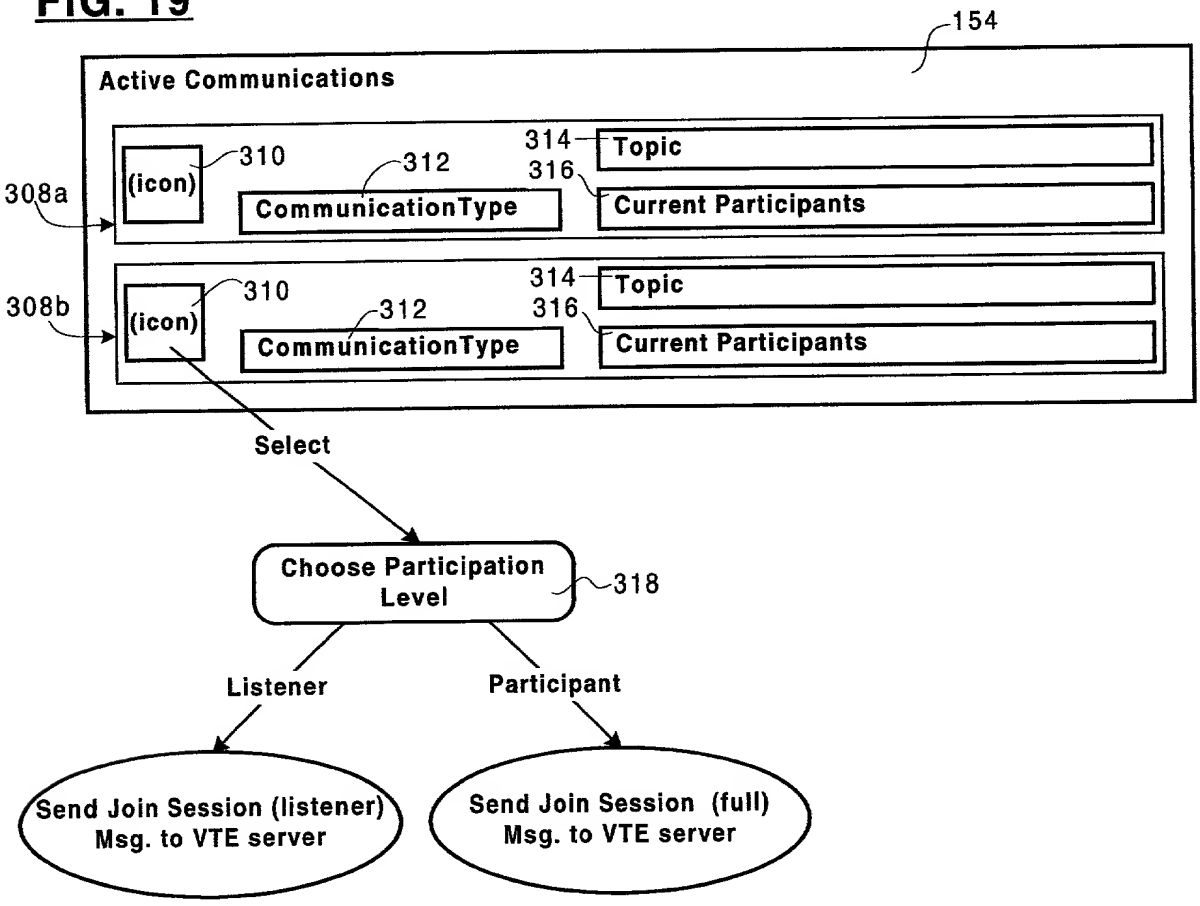

154
Active Communications
308a
(icon)
310
312
CommunicationType
314
Topic
316
Current Participants
308b
(icon)
310
312
CommunicationType
314
Topic
316
Current Participants
Select
Choose Participation Level
318
Listener
Participant
Send Join Session (listener) Msg. to VTE server
Send Join Session (full) Msg. to VTE server

FIG. 20

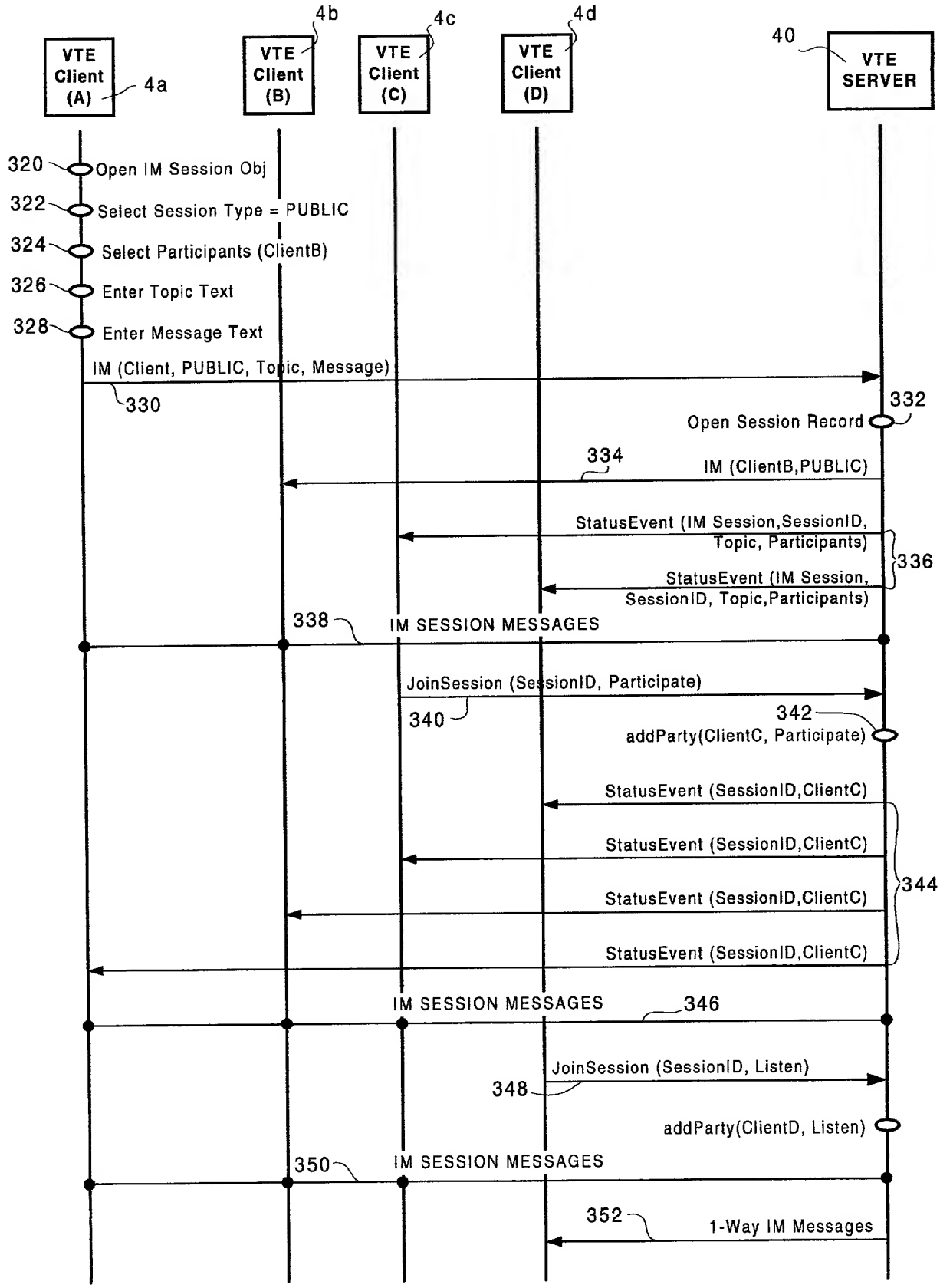

VTE Client (A)
4a
VTE Client (B)
4b
VTE Client (C)
4c
VTE Client (D)
4d
40
VTE SERVER
320
Open IM Session Obj
322
Select Session Type = PUBLIC
324
Select Participants (ClientB)
326
Enter Topic Text
328
Enter Message Text
IM (Client, PUBLIC, Topic, Message)
330
332
Open Session Record
334
IM (ClientB,PUBLIC)
StatusEvent (IM Session,SessionID, Topic, Participants)
StatusEvent (IM Session, SessionID, Topic,Participants)
336
338
IM SESSION MESSAGES
JoinSession (SessionID, Participate)
340
342
addParty(ClientC, Participate)
StatusEvent (SessionID,ClientC)
StatusEvent (SessionID,ClientC)
StatusEvent (SessionID,ClientC)
StatusEvent (SessionID,ClientC)
344
IM SESSION MESSAGES
346
JoinSession (SessionID, Listen)
348
addParty(ClientD, Listen)
350
IM SESSION MESSAGES
352
1-Way IM Messages

FIG. 21

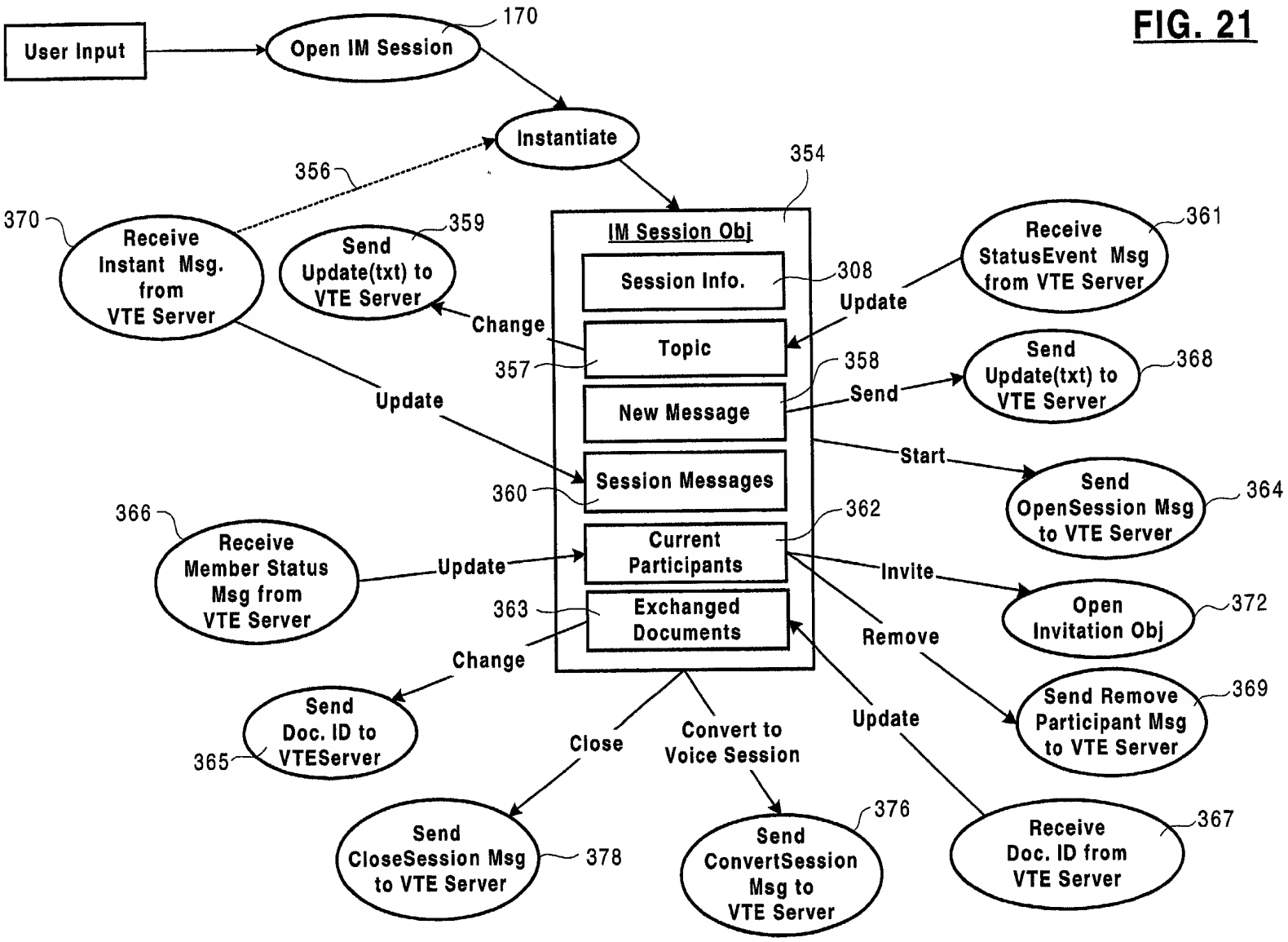

User Input
Open IM Session
170
Instantiate
354
356
370
Receive Instant Msg. from VTE Server
359
Send Update(txt) to VTE Server
IM Session Obj
Session Info.
308
Topic
357
New Message
358
Session Messages
360
Current Participants
362
Exchanged Documents
363
Change
Update
361
Receive StatusEvent Msg from VTE Server
Send
368
Send Update(txt) to VTE Server
Start
364
Send OpenSession Msg to VTE Server
Invite
372
Open Invitation Obj
Remove
369
Send Remove Participant Msg to VTE Server
366
Receive Member Status Msg from VTE Server
365
Send Doc. ID to VTEServer
Close
Convert to Voice Session
Send CloseSession Msg to VTE Server
378
376
Send ConvertSession Msg to VTE Server
367
Receive Doc. ID from VTE Server

FIG. 22

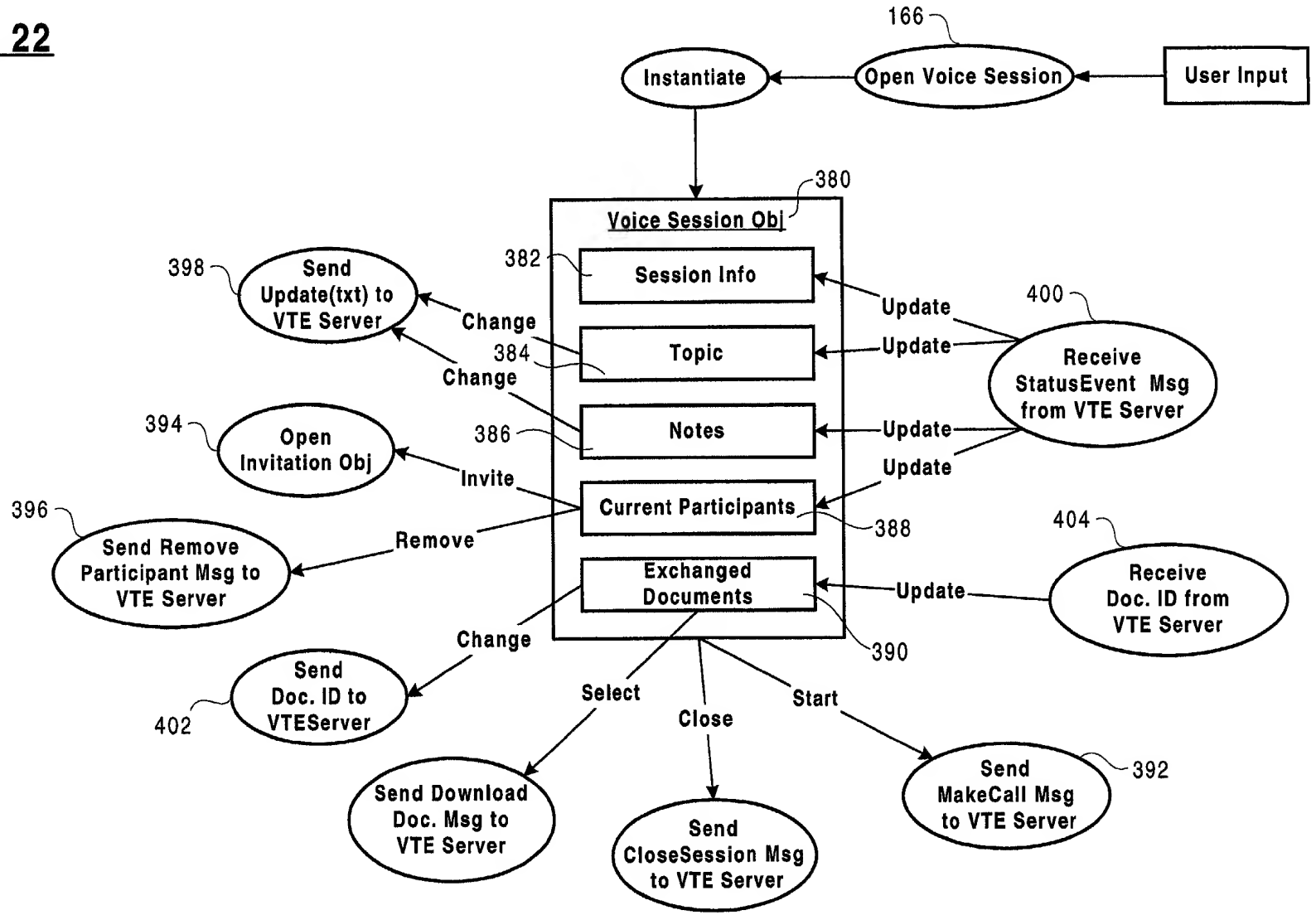
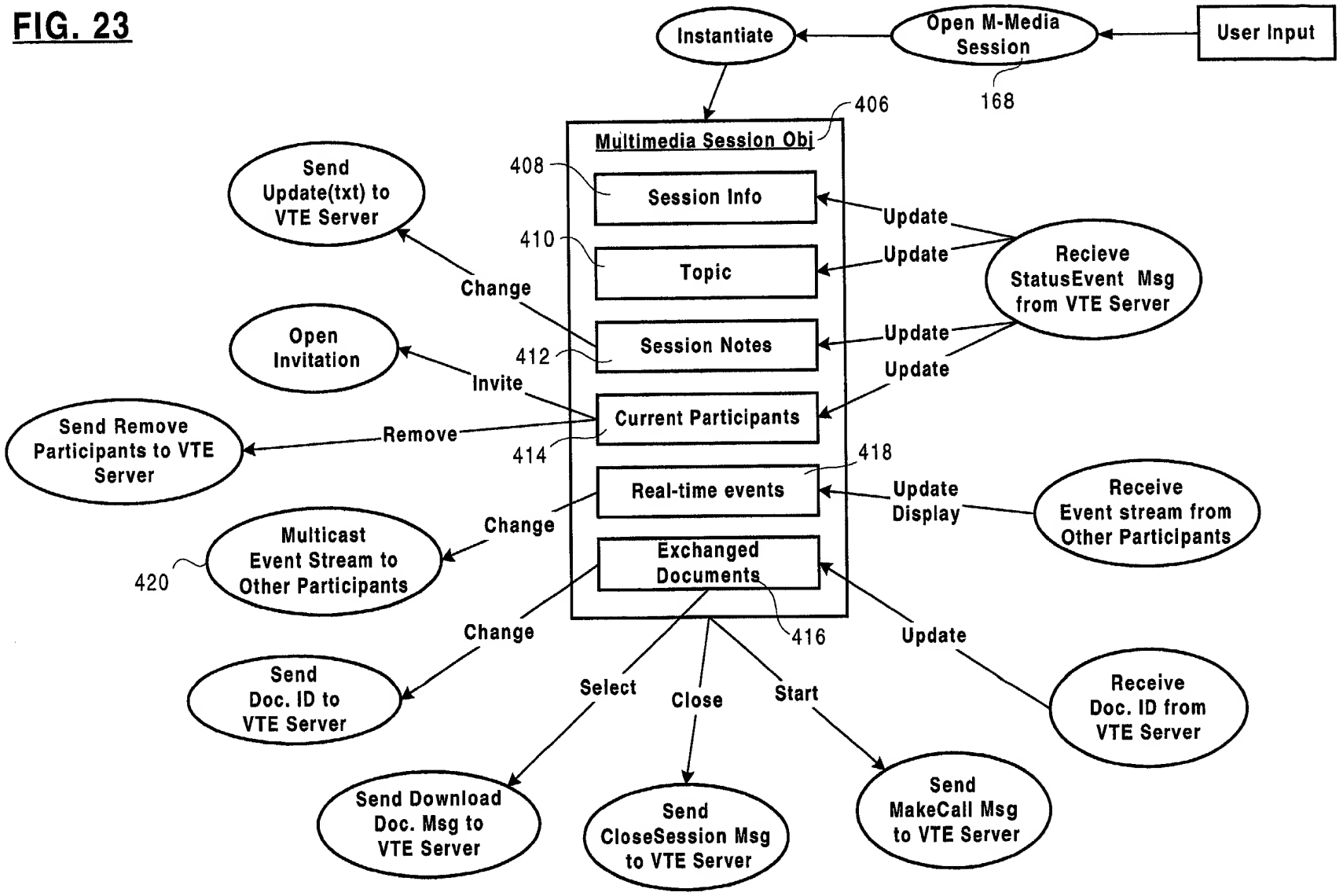

166
Instantiate
Open Voice Session
User Input
380
Voice Session Obj
382
Session Info
384
Topic
386
Notes
388
Current Participants
390
Exchanged Documents
398
Send Update(txt) to VTE Server
Change
Change
394
Open Invitation Obj
Invite
396
Send Remove Participant Msg to VTE Server
Remove
Change
402
Send Doc. ID to VTEServer
Select
Close
Start
Send Download Doc. Msg to VTE Server
Send CloseSession Msg to VTE Server
Send MakeCall Msg to VTE Server
392
Update
Update
400
Receive StatusEvent Msg from VTE Server
Update
Update
404
Receive Doc. ID from VTE Server
Update

FIG. 23


Instantiate
Open M-Media Session
User Input
168
406
Multimedia Session Obj
408
Session Info
410
Topic
412
Session Notes
414
Current Participants
418
Real-time events
Exchanged Documents
416
Update
Update
Update
Update
Update
Update Display
Recieve StatusEvent Msg from VTE Server
Receive Event stream from Other Participants
Receive Doc. ID from VTE Server
Change
Send Update(txt) to VTE Server
Invite
Open Invitation
Remove
Send Remove Participants to VTE Server
Change
Multicast Event Stream to Other Participants
420
Change
Send Doc. ID to VTE Server
Select
Send Download Doc. Msg to VTE Server
Close
Send CloseSession Msg to VTE Server
Start
Send MakeCall Msg to VTE Server

08STAT 26288260

FIG. 24

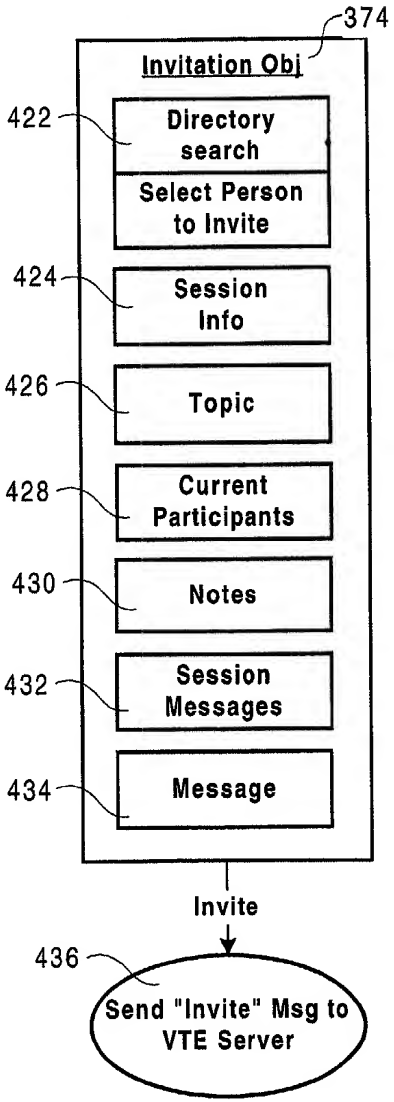


FIG. 25

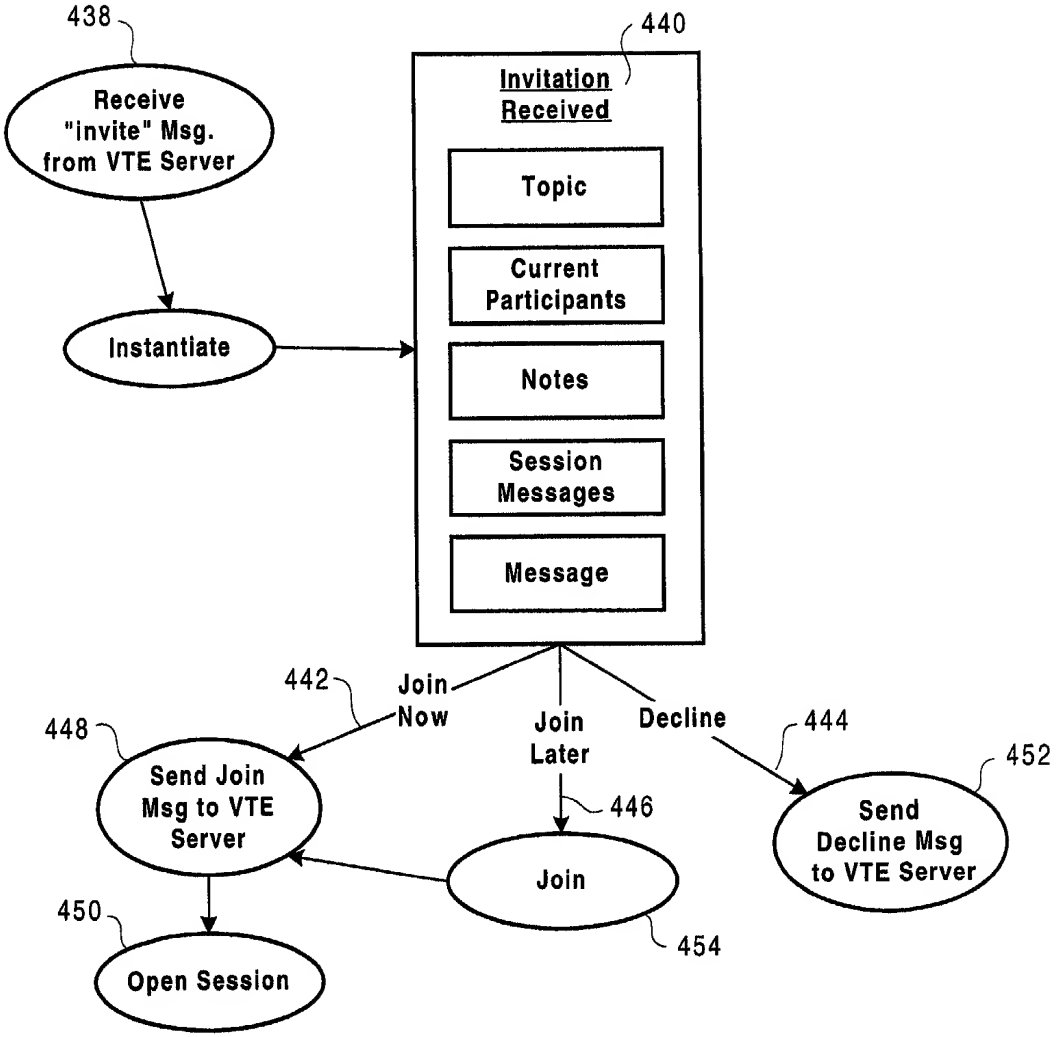


FIG. 26 Set Up 2-Way Voice Communications Session

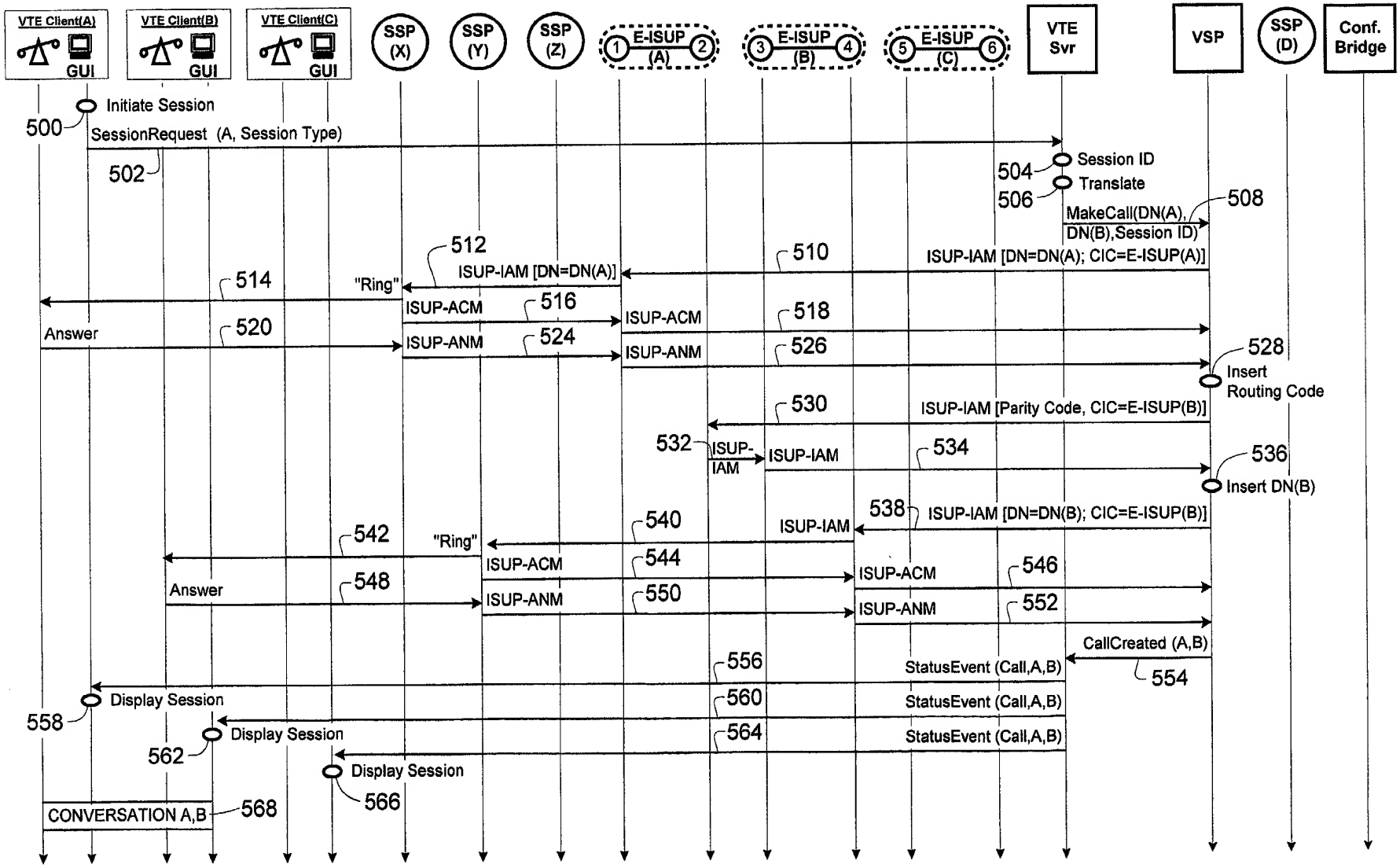


FIG. 27 Close 2-Way Voice Communications Session

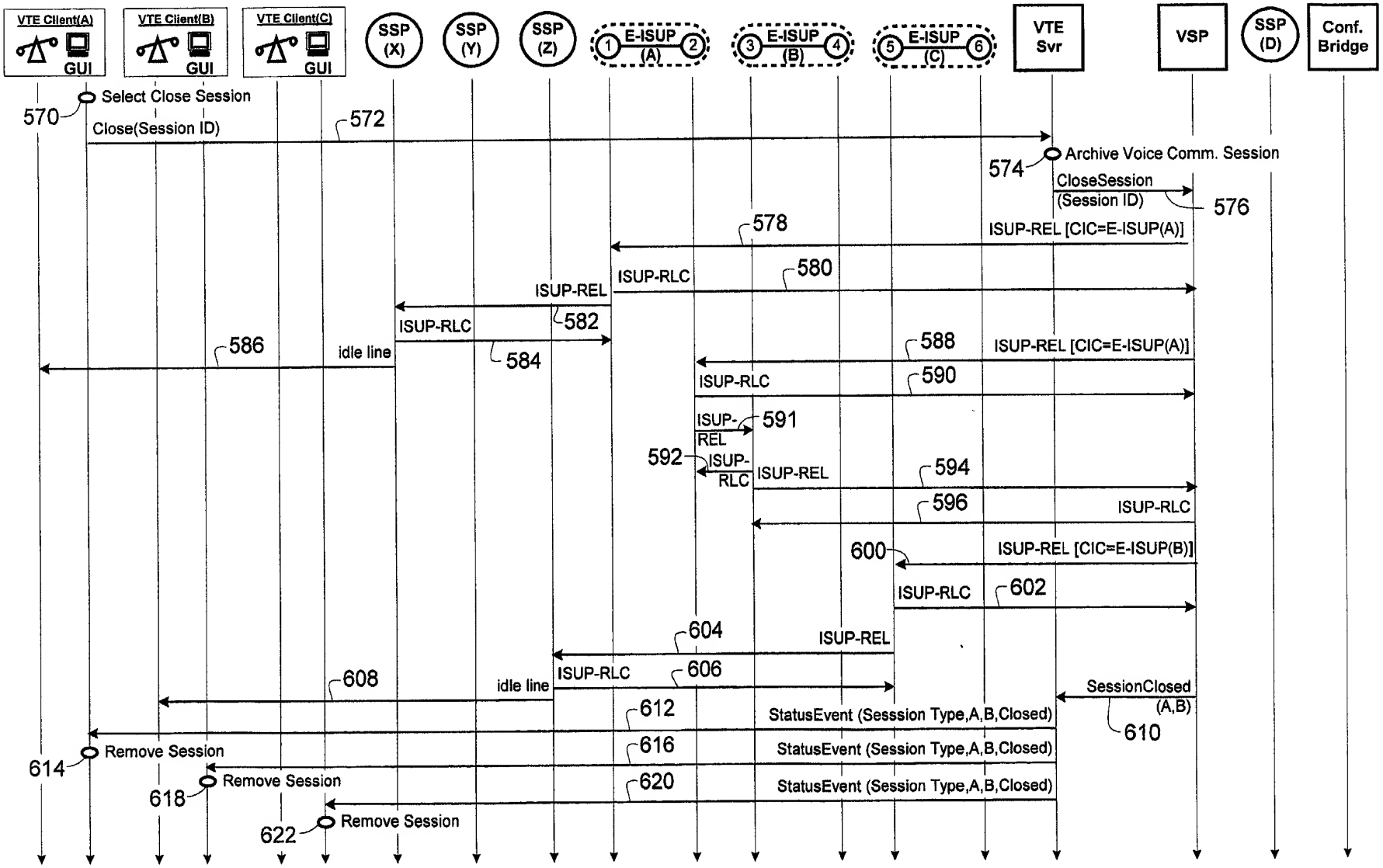


FIG. 28 Add 3rd Party to 2-Way Voice Communications Session - PSTN

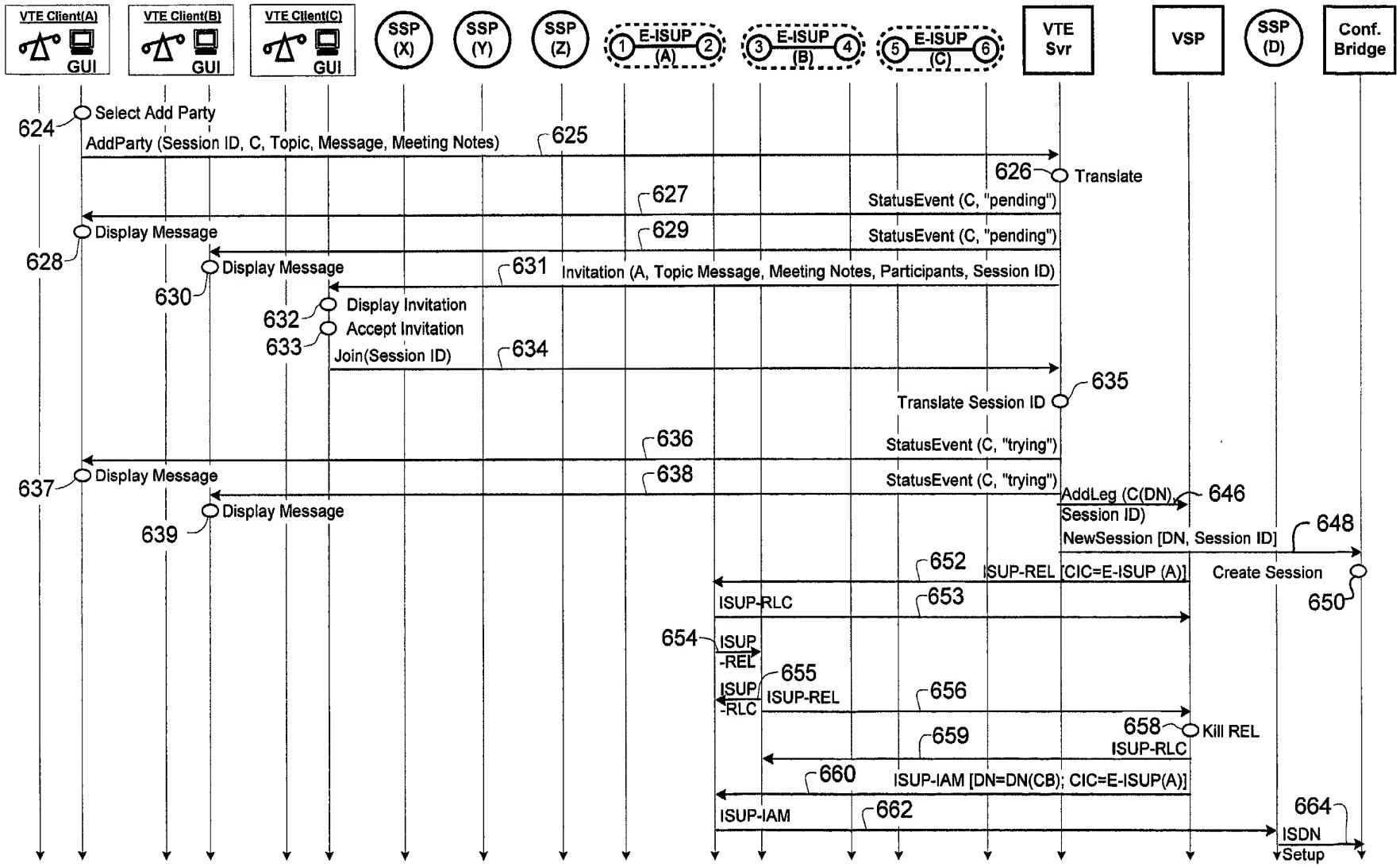


FIG. 28a Add 3rd Party to 2-Way Voice Communications Session - PSTN (Cont.)

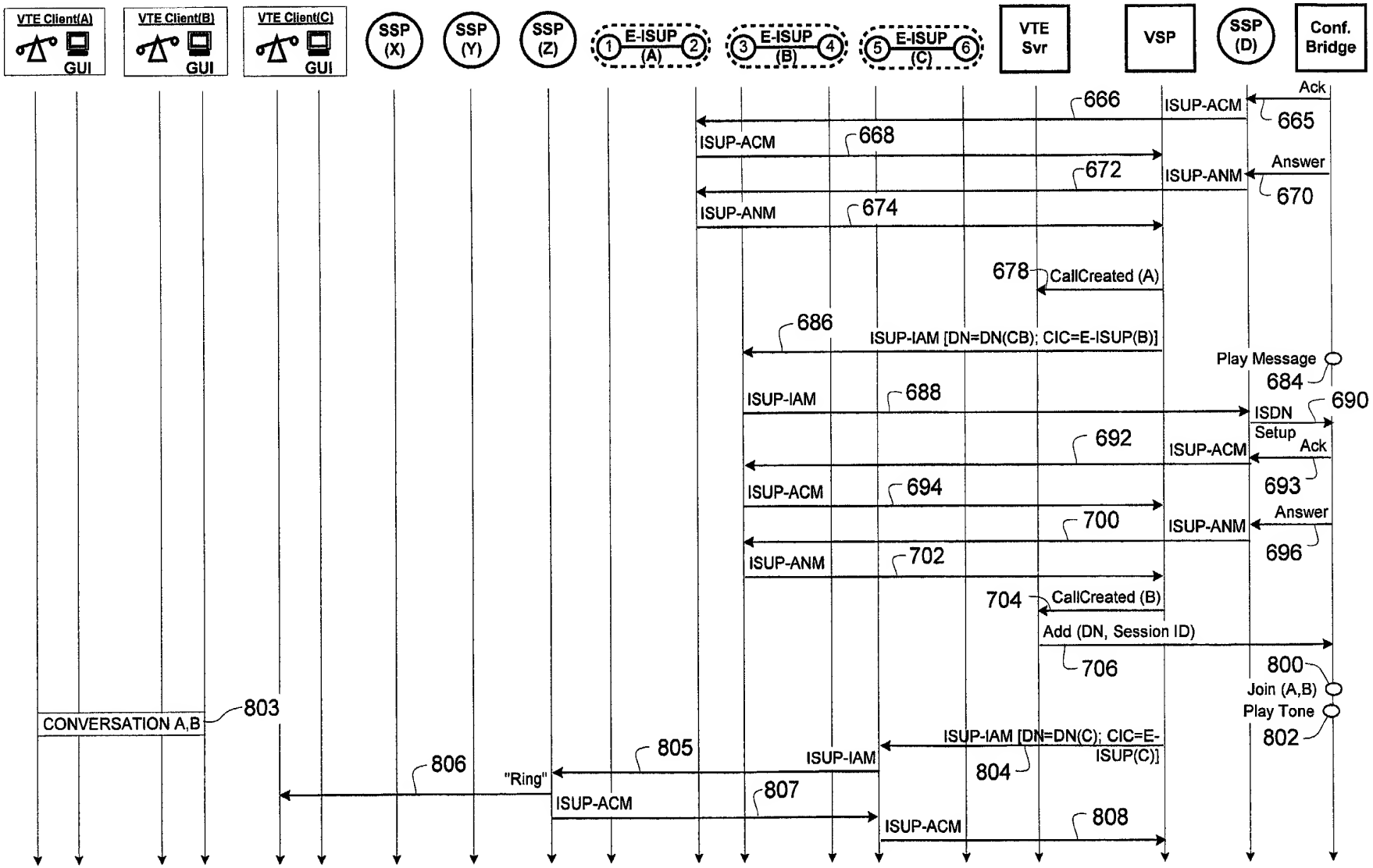


FIG. 28b Add 3rd Party to 2-Way Voice Communications Session - PSTN (Cont.)

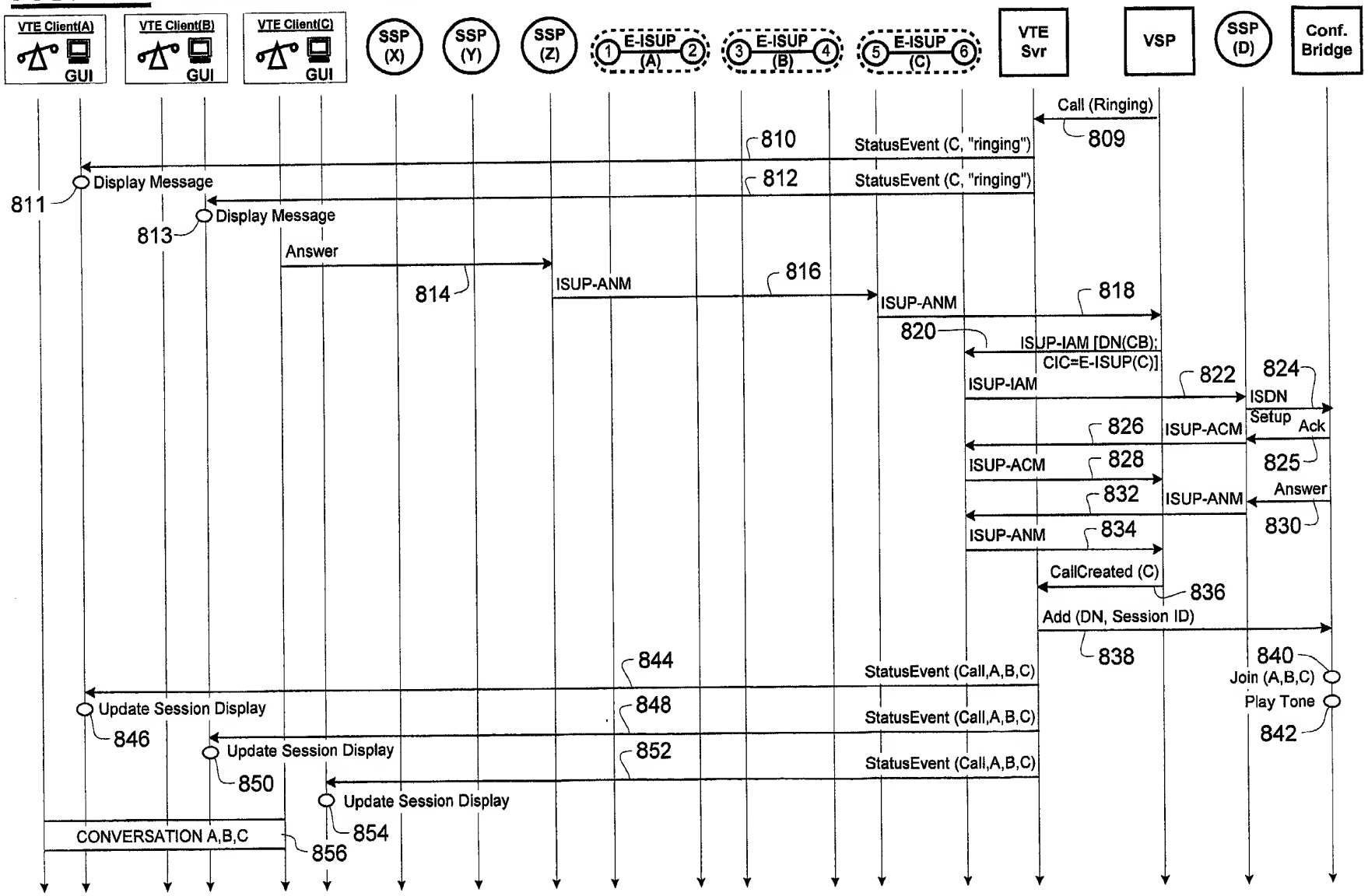


FIG. 29 Close 3-Way Voice Communications Session

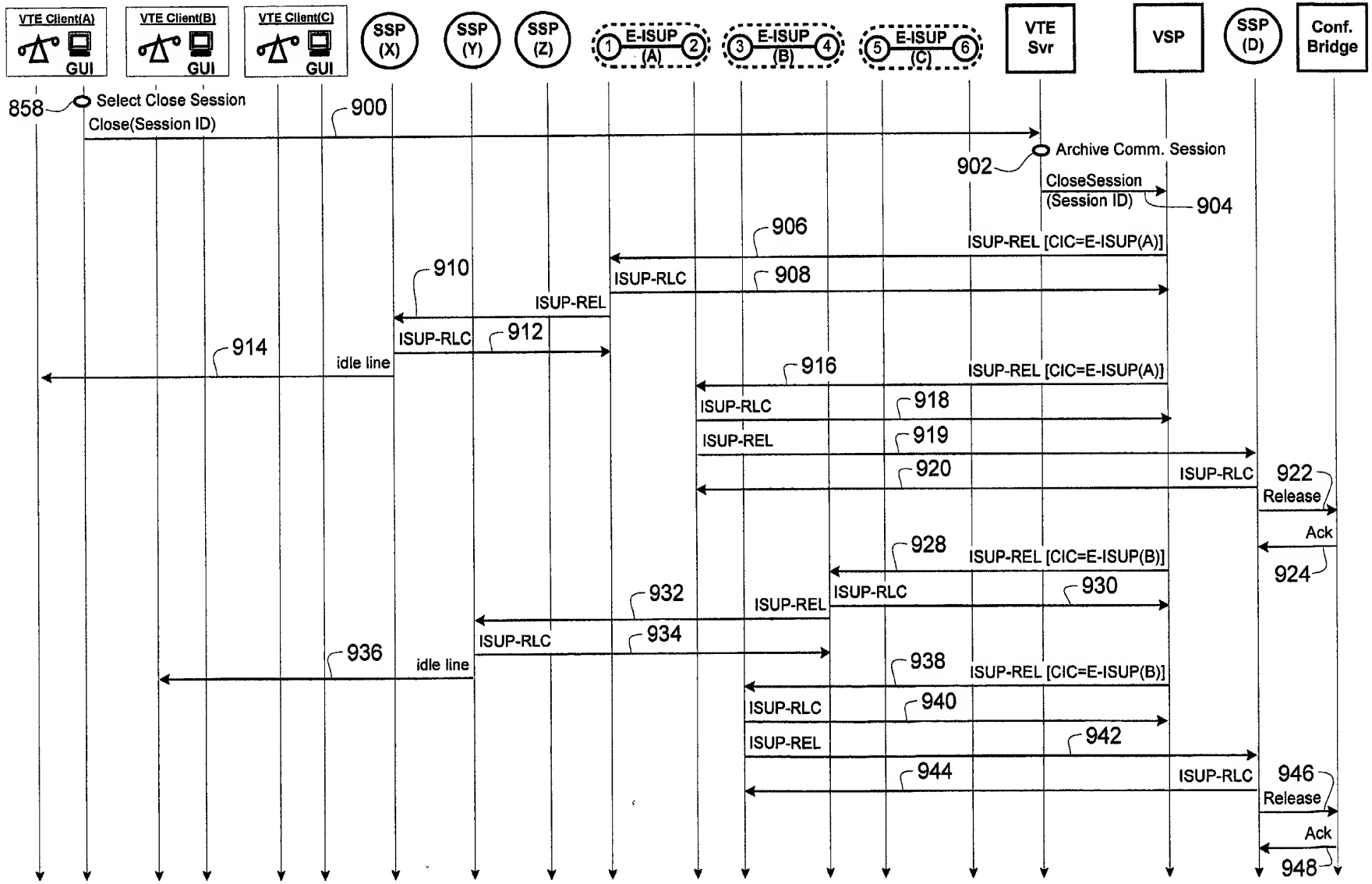


FIG. 29a Close 3-Way Voice Communications Session (Cont.)

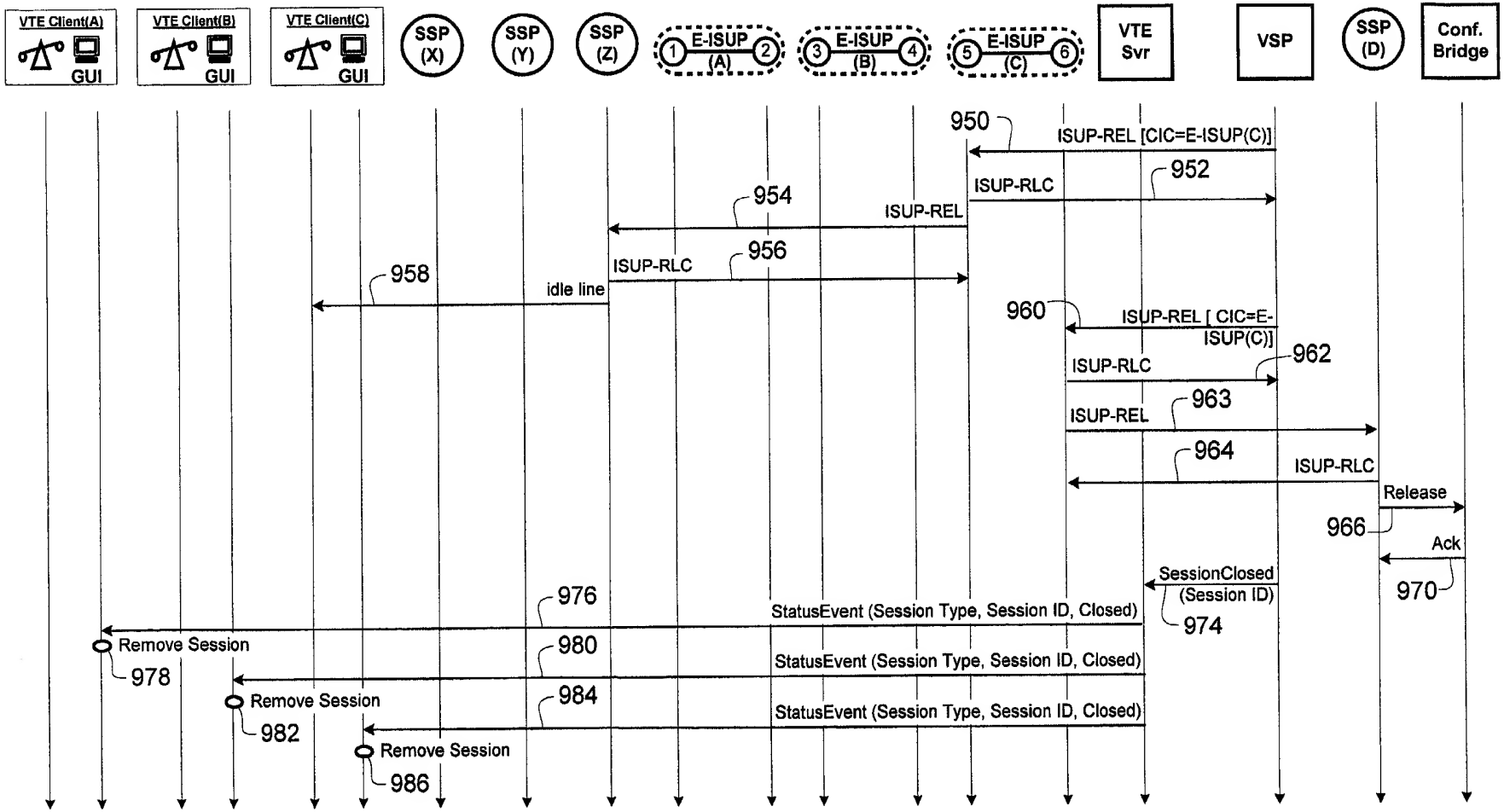


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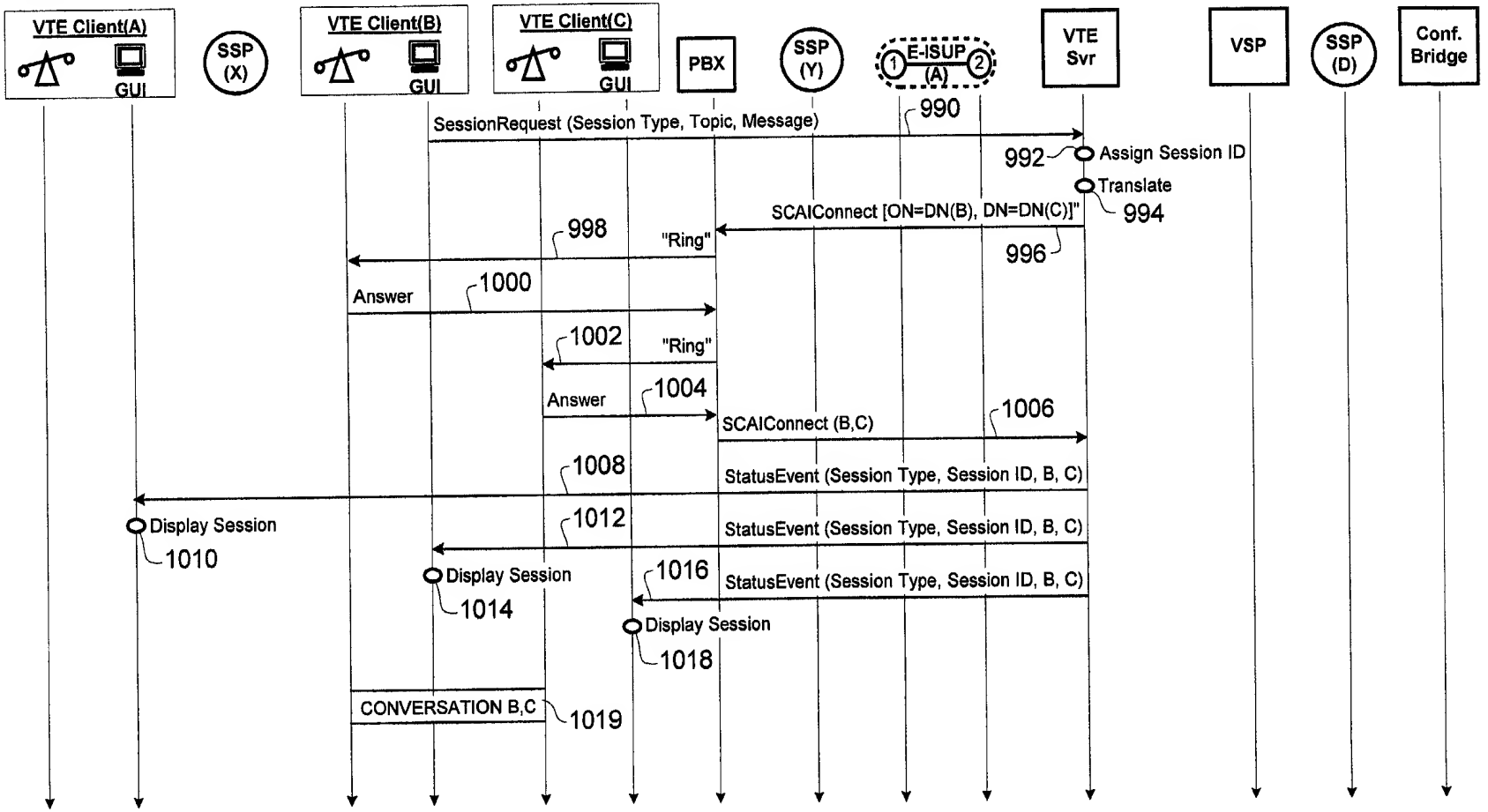
FIG. 30 Set Up 2-Way Voice Communications Session - Enterprise Network



00871" 2628260

FIG. 31 Add 3rd Party to 2-Way Voice Communications Session - Enterprise Network

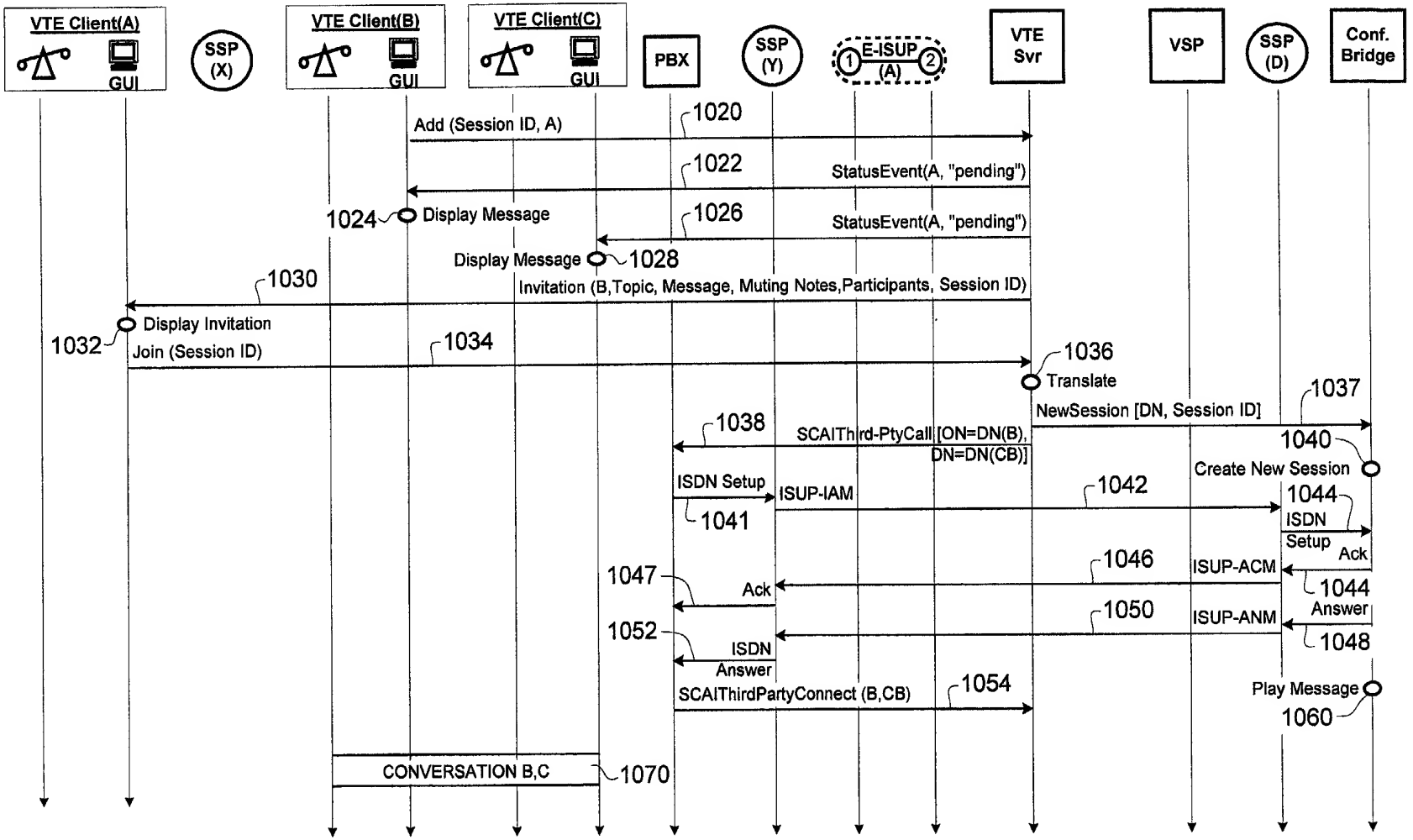


FIG. 31a Add 3rd Party to 2-Way Voice Communications Session - Enterprise Network (Cont.)

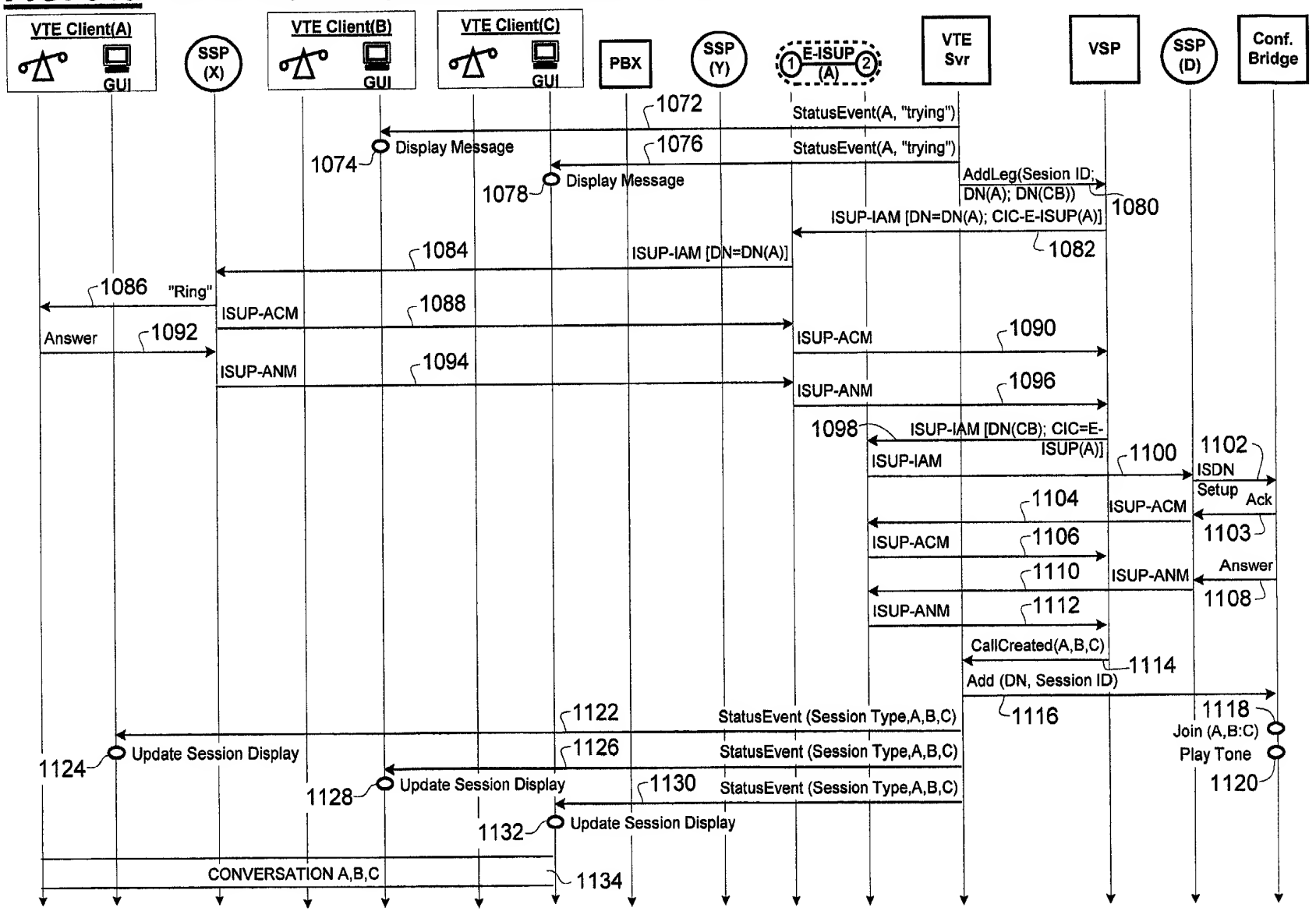


FIG. 32 Convert 3-Way IM Session to 3-Way Voice Communications Session

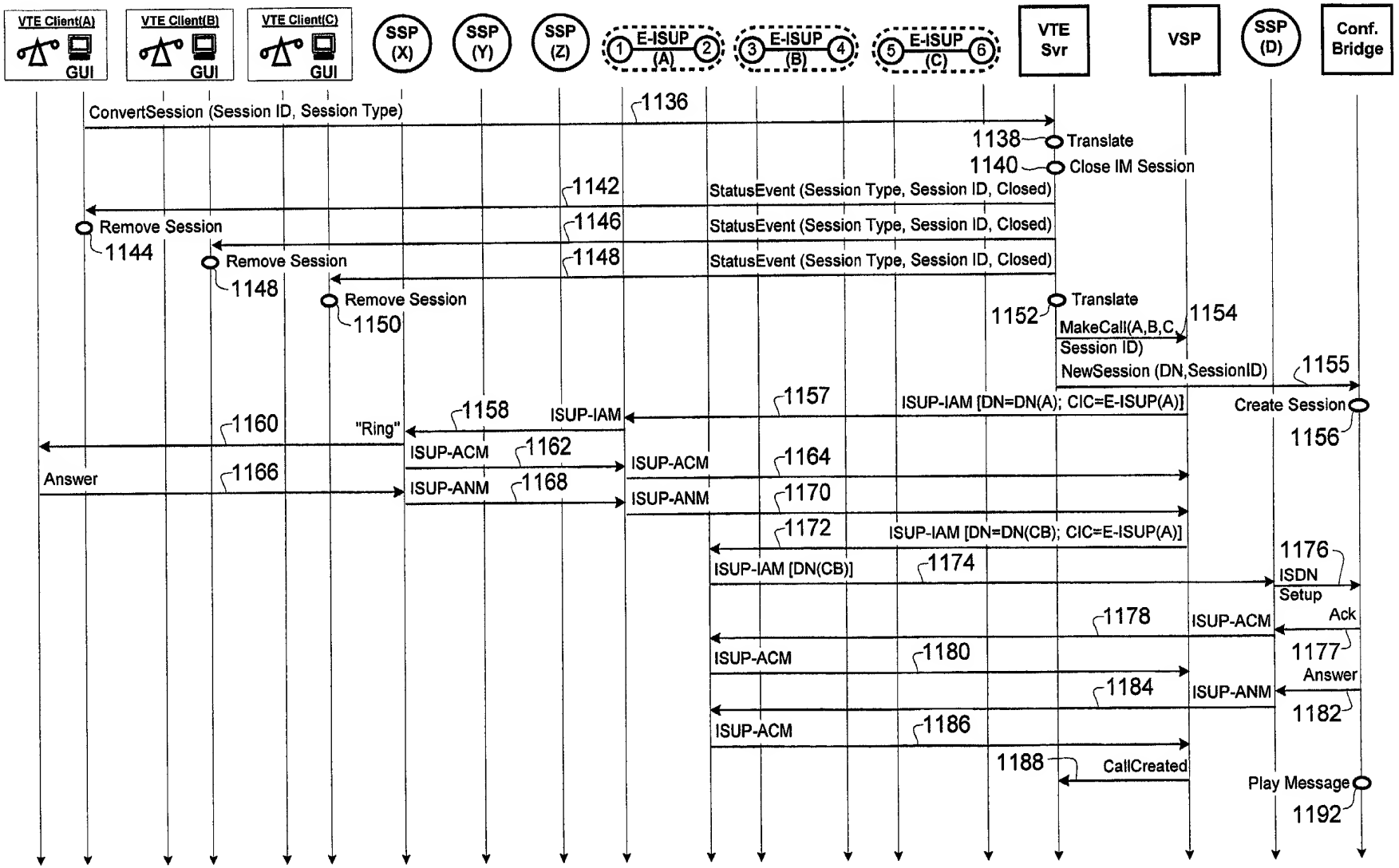


FIG. 32a Convert 3-Way IM Session to 3-Way Voice Communications Session (Cont.)

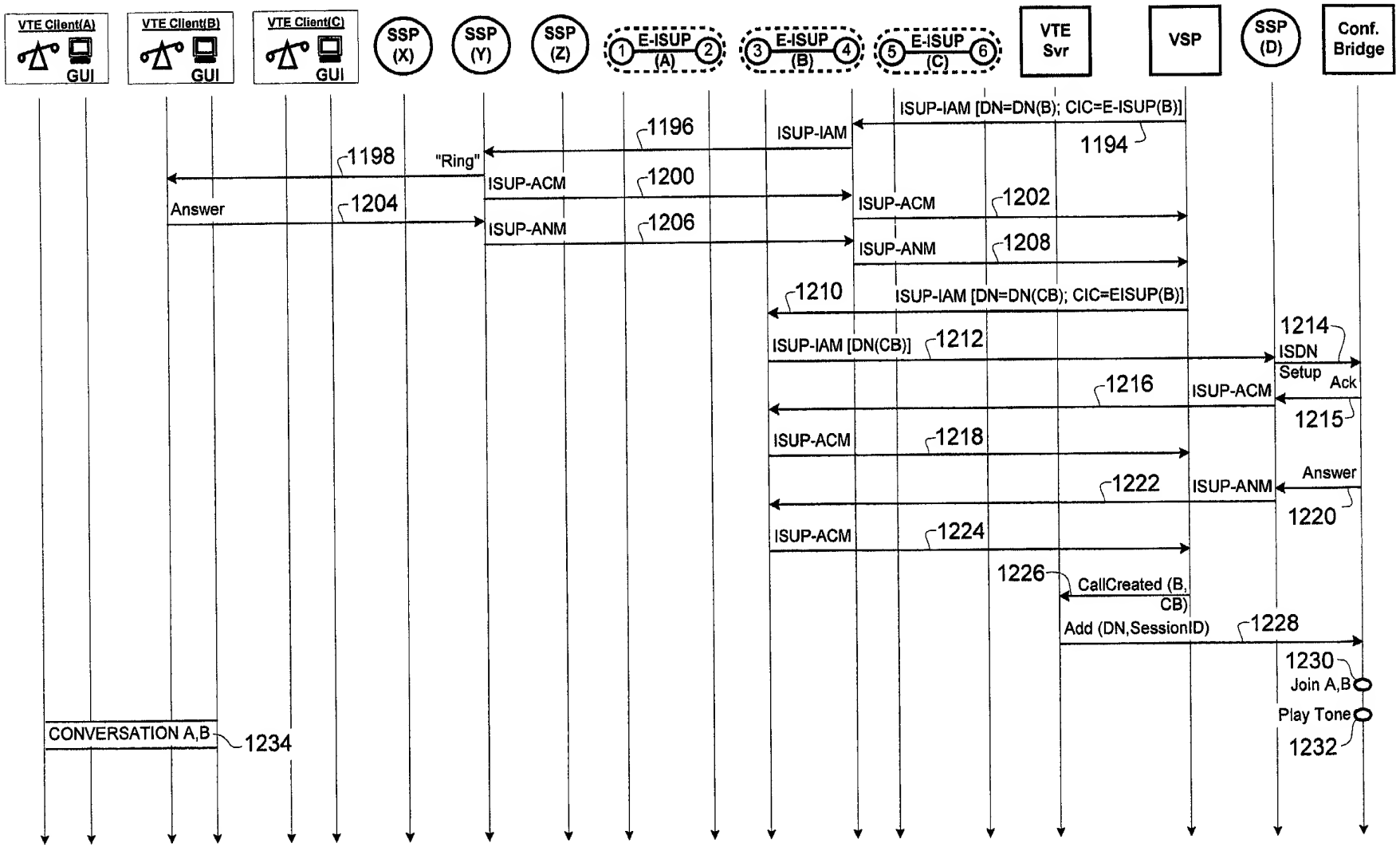


FIG. 32b Convert 3-Way IM Session to 3-Way Voice Communications Session (Cont.)

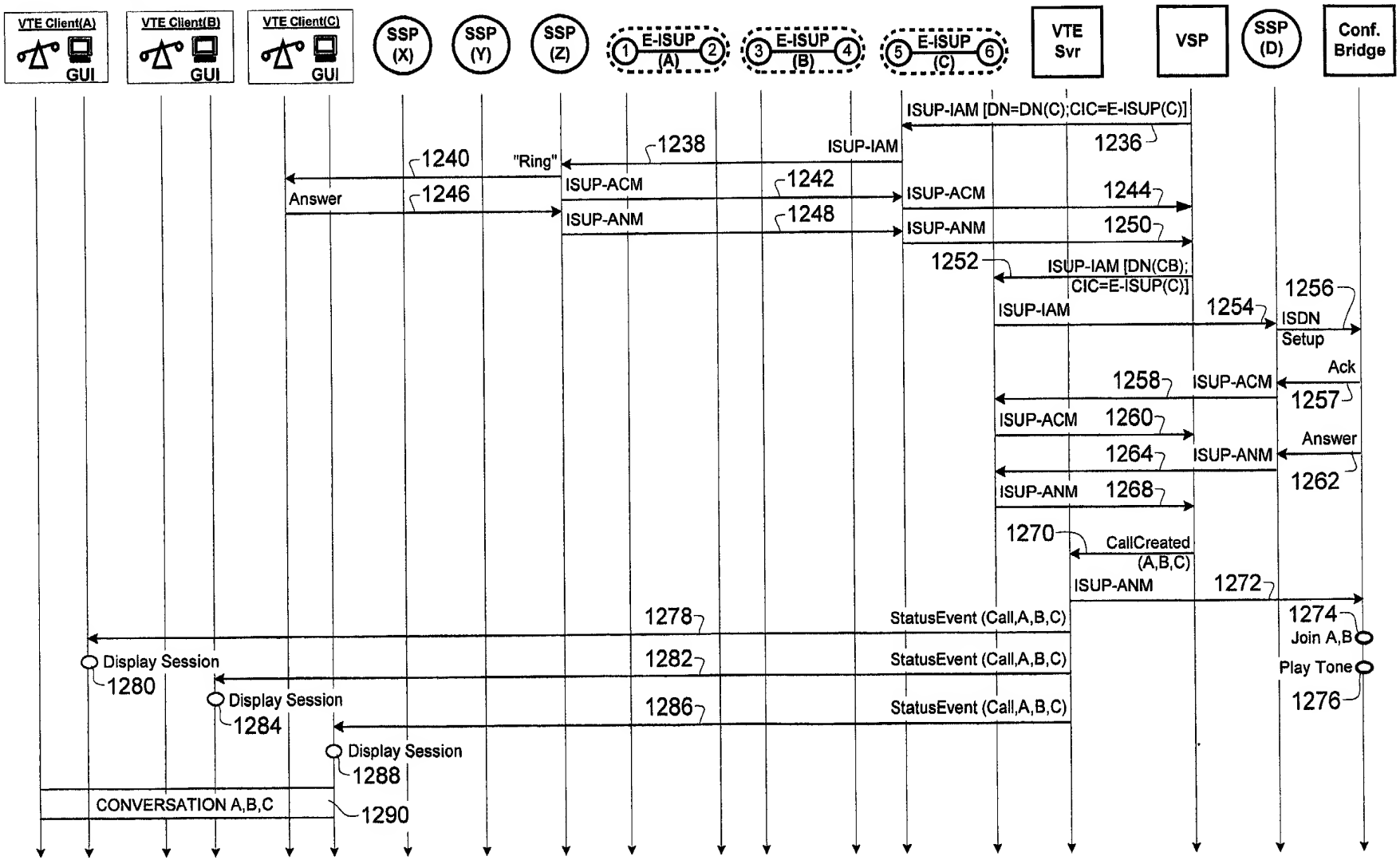


FIG. 33 Set-up 2-way Multi-Media Session

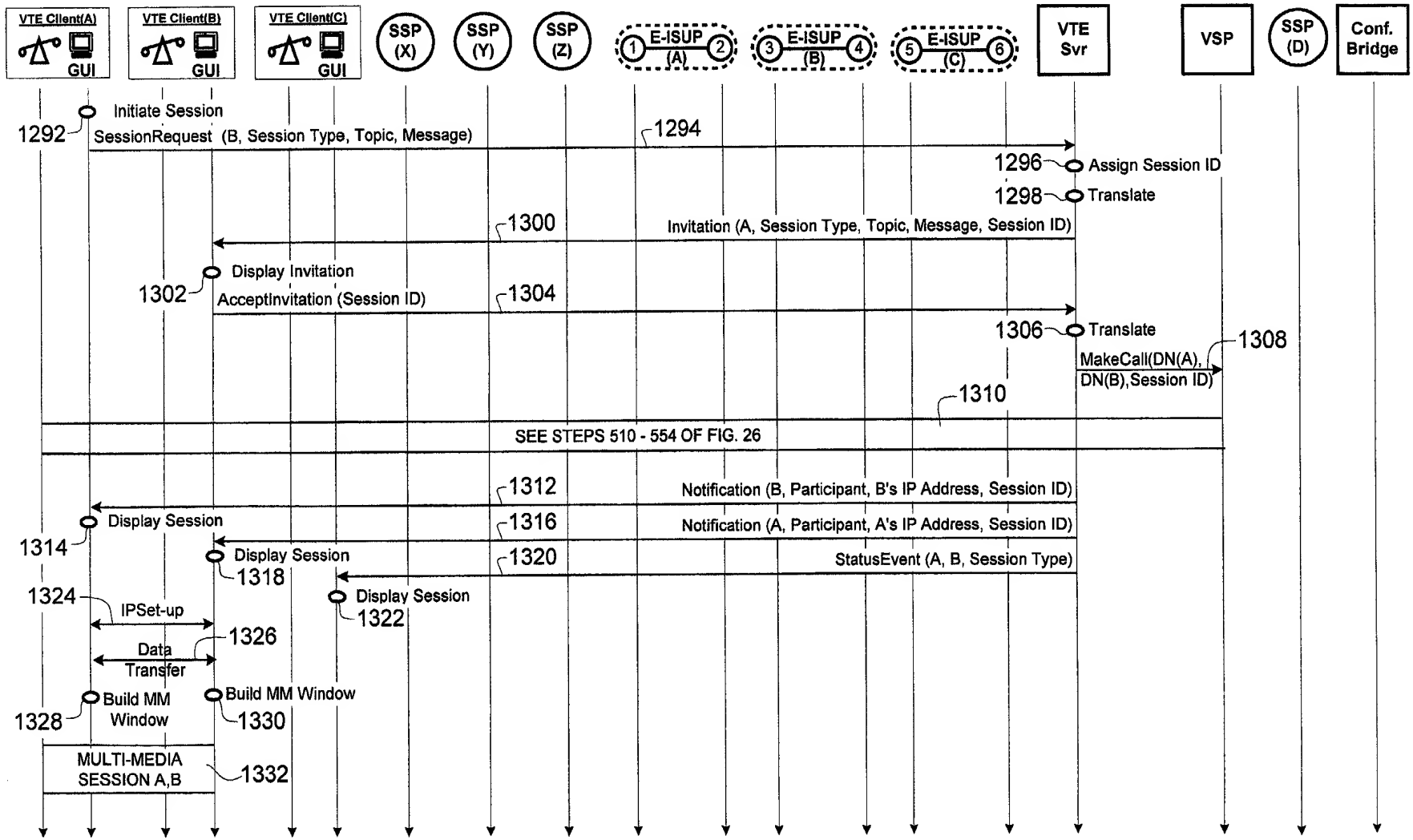


FIG. 34 Add 3rd Party to Multi-media Session

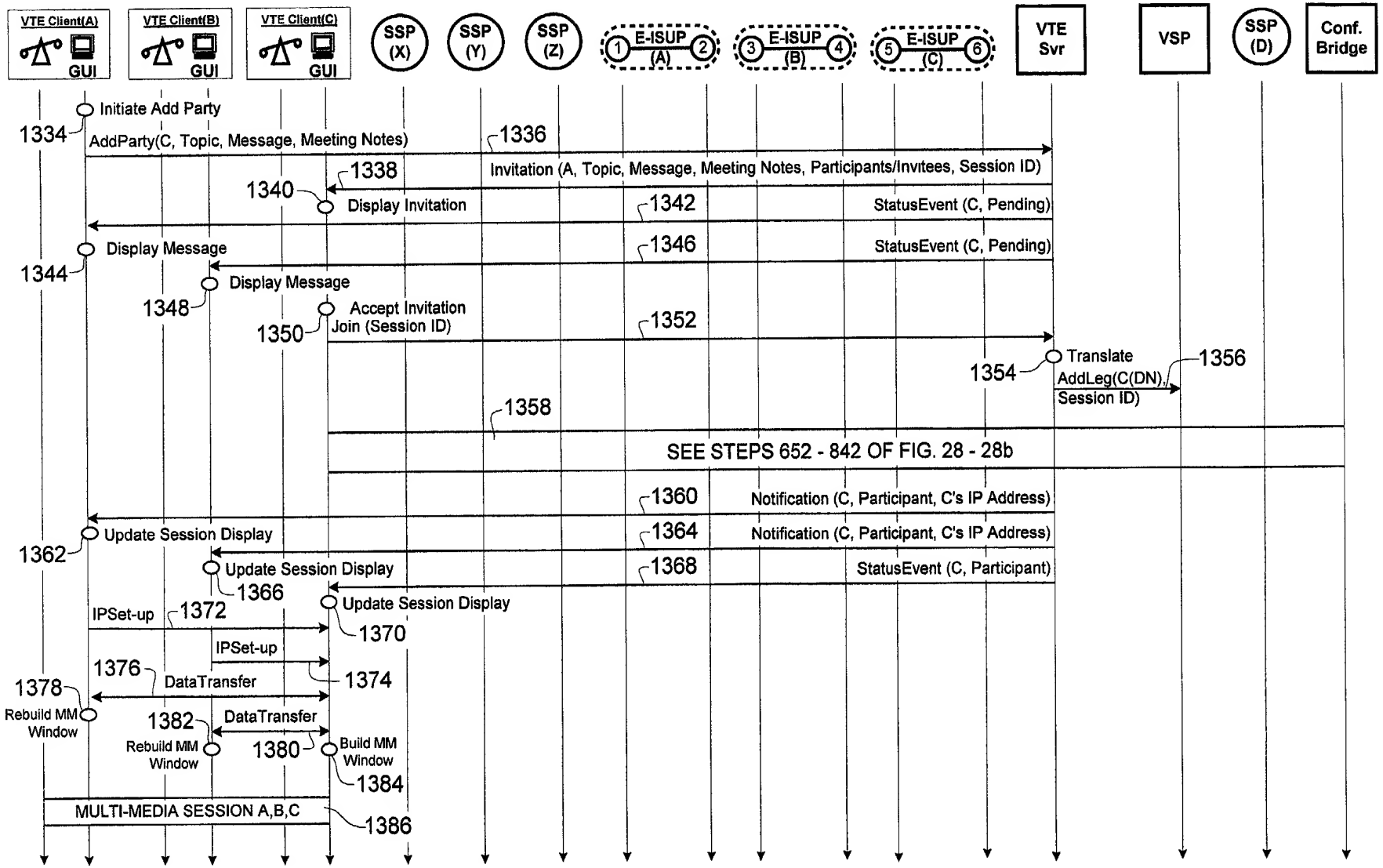


FIG. 35 Add 3rd Party to Multi-media Session (Deferred Acceptance)

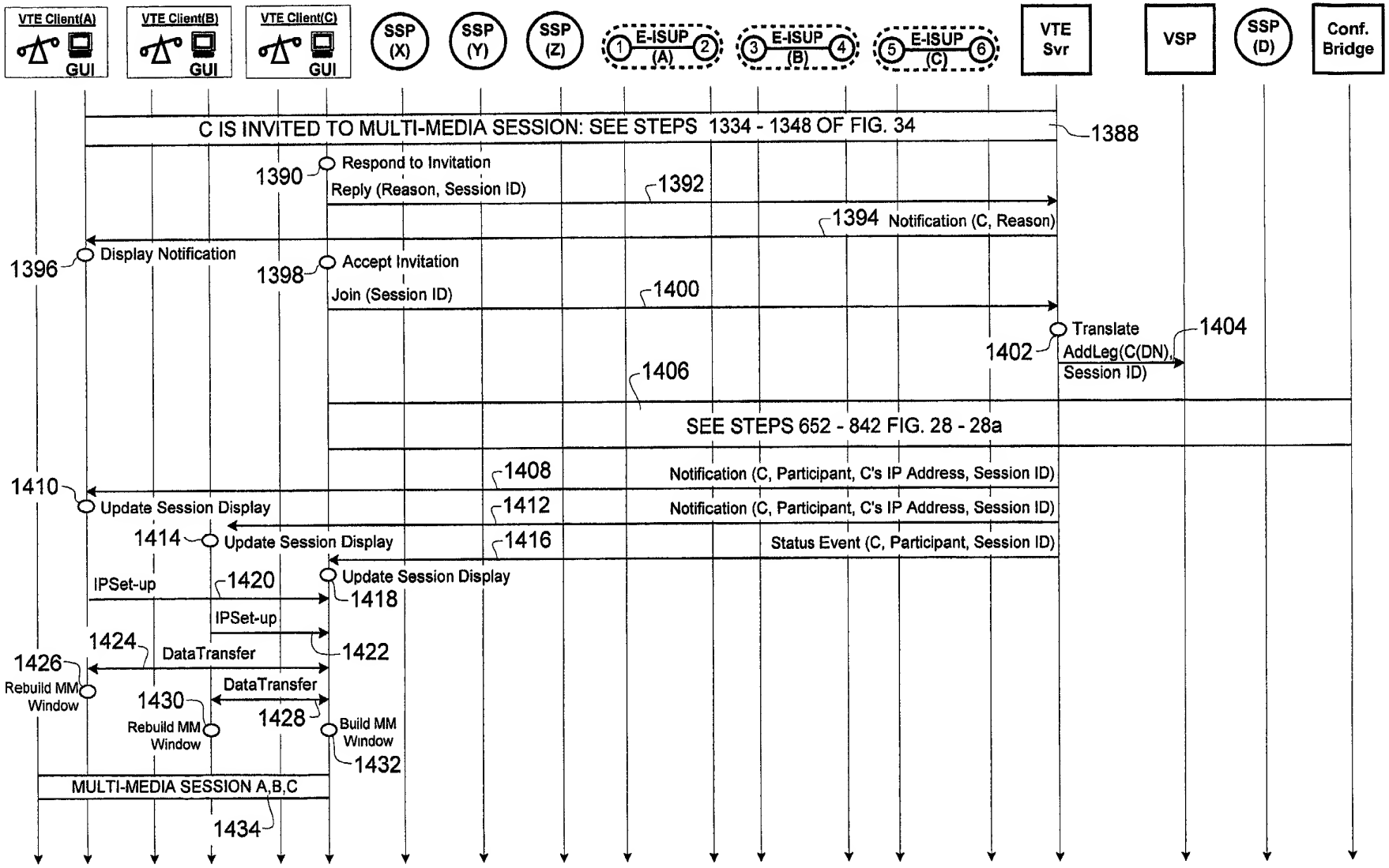


FIG. 36 Add 3rd Party to Multi-media Session (3rd Party Not Logged to VTE)

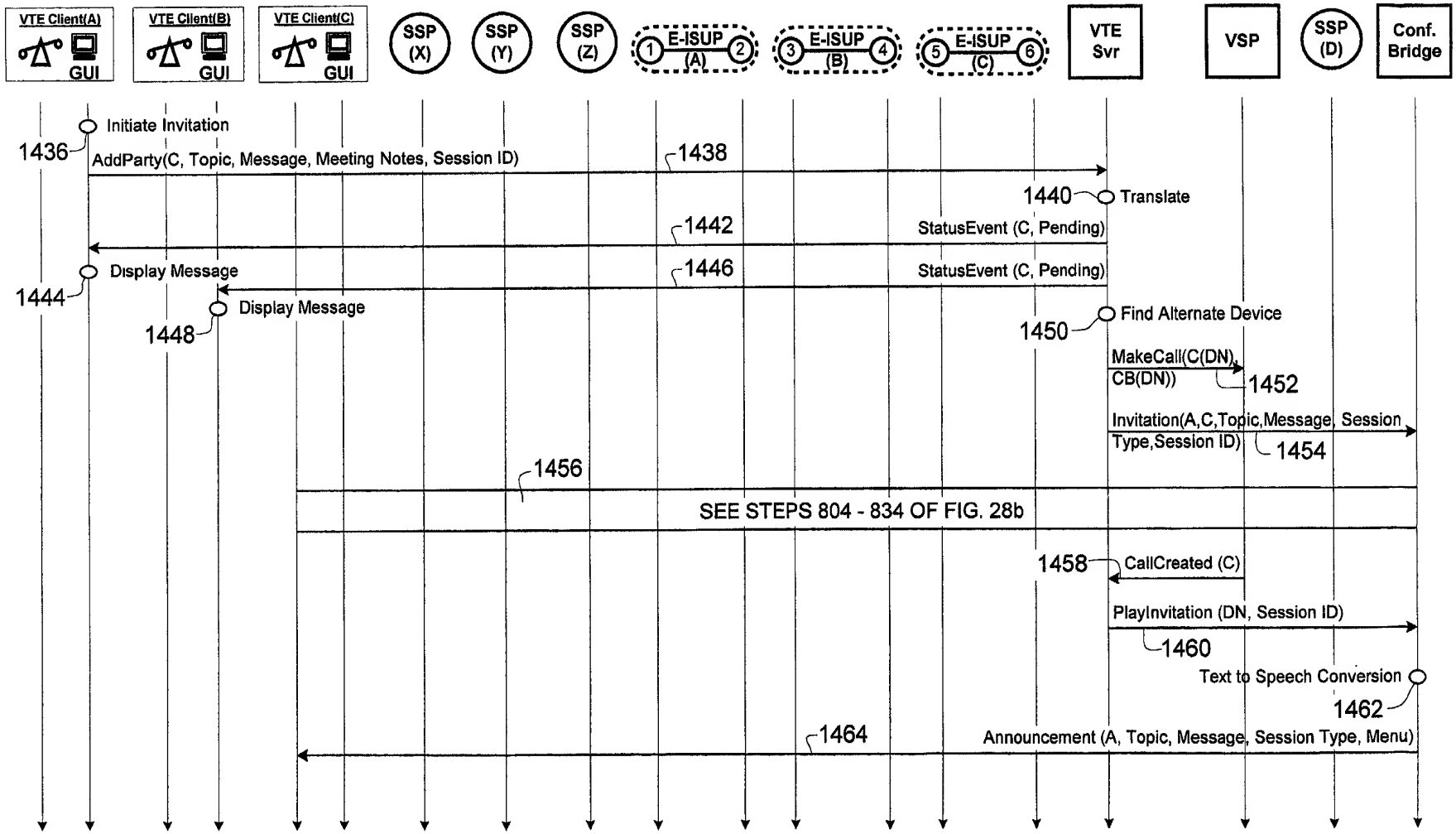
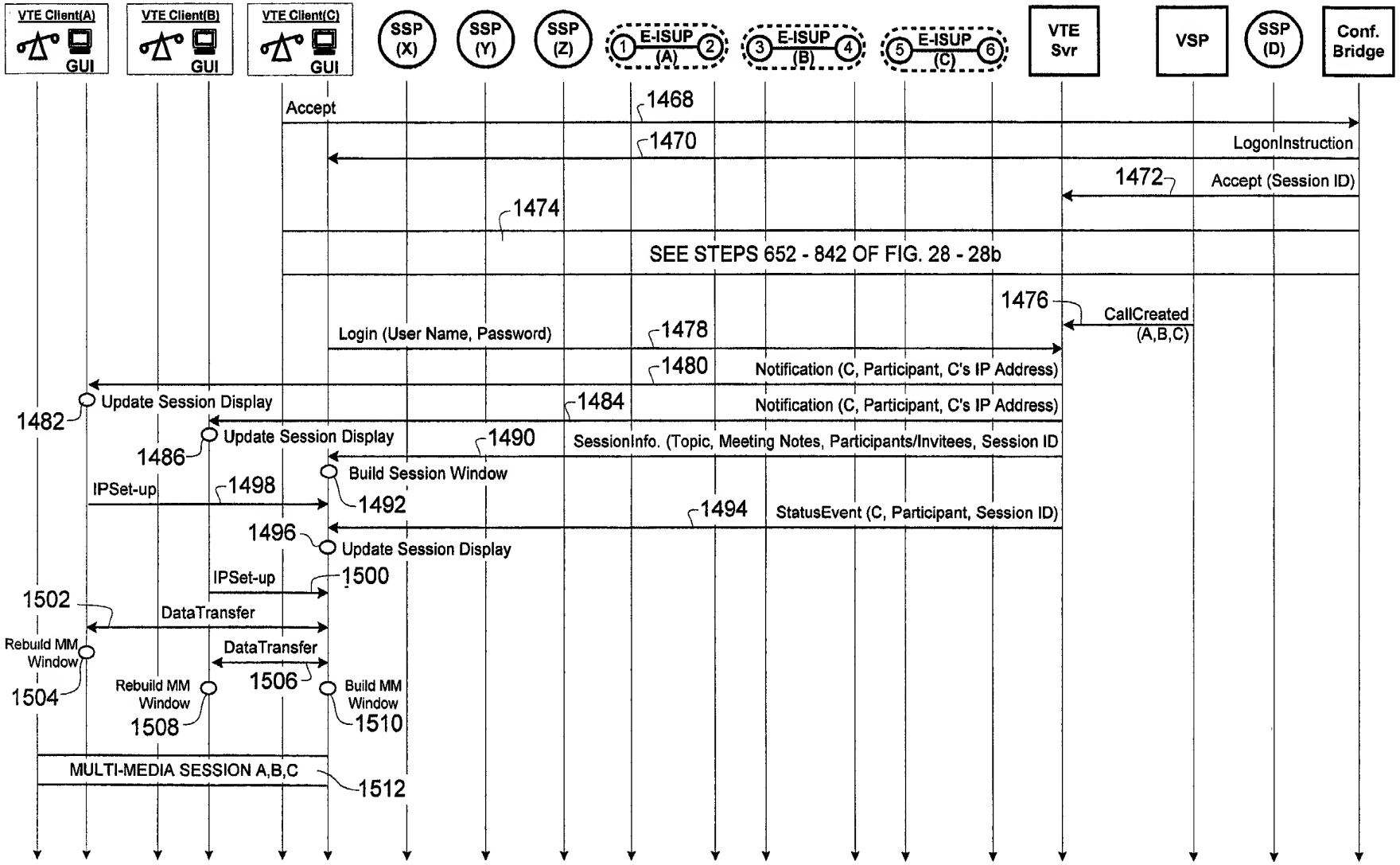



FIG. 36a Add 3rd Party to Multi-media Session (3rd Party Not Logged on to VTE) (Cont.)